A REVISION OF AUSTRALIAN SPECIES OF *RHYTIDOPONERA* MAYR (FORMICIDAE).

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(Plates III-VI.)

In Australia the genus *Rhytidoponera* is most abundant in the northern area which comes within the influence of monsoonal rainfall and in the drier areas to the south. It has not been found in Tasmania, in the southern half of Victoria, in the extreme south-west of Western Australia, nor in the mountainous districts of New South Wales. Many species are found in New Guinea, two in the Solomon Islands and two in Aru Islands; the genus has also been recorded from the Moluccas.

Emery (Genera Insectorum, 118, 1911) listed 14 species, 6 subspecies and 4 varieties, a total of 23 forms as Australian. Since that time 22 forms have been added, chiefly by Crawley and Forel, making a total of 45 forms. In the following pages 20 new species are described and *reticulata* Forel, which is a true *Rhytidoponera*, is retained in the genus; 12 species are deleted and *ruginoda* Smith is removed from the genus, making a total of 53 known forms. Both Roger and Emery place *Ponera ruginoda* Smith in *Rhytidoponera*, but from Smith's description it cannot be included in this genus.

Males of only 22 forms are known; of these 17 are now described and figured, and for the remainder, which I have not seen, the original descriptions have been transcribed for the sake of completeness. In the present state of our knowledge it is almost impossible to determine the species of undescribed males collected without related workers. For this reason a large number of unknown males in the collection has not been dealt with here. During early summer males are present in the nests. They often fly in numbers to lights at night.

All efforts to find a female have failed, although diligent search has been made in many nests containing eggs, larvae and pupae. Probably the female is ergatoid, resembling the workers so closely that only careful examination of each individual will reveal her.

Generally the nest is constructed underground, often in the roots of small shrubs and trees but occasionally under logs or stones. The underground nest is surmounted by a raised crater-like mound from two to six inches in diameter and the same in height. The larvae and pupae are usually to be found near the top of the nest; and the dark brown, almost black, pupae frequently in bright sunlight. When disturbed the workers of most species make a distinct stridulating sound before retreating, and the larvae and pupae are carried below or hidden in crevices or under debris. They are rather sluggish in movement, but can move rapidly. The sting is severe and equal to that of the Bull-ants (*Myrmecia*). The *Rhytidoponerae* are among the few ponerine ants which hunt among the blossoms and sip the exudations of small plants. Many myrmecophiles, particularly Coleoptera, are found in the nests during the spring months.

Unless otherwise stated, the types of all new species are in the National Museum, Melbourne.

Family **FORMICIDAE** Latreille 1810.

Subfamily **Ponerinae** Lepeletier 1836.

Genus RHYTIDOPONERA Mayr.

Ectatomma subgenus *Rhytidoponera* Mayr, Verh. Zool.—bot. Ges. Wien, xii, p. 731, 1862: *ibidem*, xxxvii, p. 539, 1887.

Ectatomma (Part) Smith, Cat. Hymn. Brit. Mus., vi, p. 104, 1858.

Ponera (Part) Le Guillou, Ann. Soc. Ent. Fr., x, p. 317, 1840.

Rhytidoponera Emery, Ann. Mus. Stor. Civ. Genova, xxxviii, p. 547, 1897; *Rhytidoponera (R.)*, Gen. Ins., fasc. 118, pp. 36-37, 1911.

Rhytidoponera Wheeler, Bull. Amer. Mus. Nat. Hist., xlv, p. 643, 1922.

Worker.—Monomorphic. Mandibles triangular, with or without small teeth. Antennae filiform, with twelve segments, scapes extend about one-third their length beyond occipital border. First segment of funiculus generally shorter than second. Eyes large and convex, placed at, or behind, middle of sides of head. No ocelli. Head usually truncate behind, rounded in a few species. Occipital border straight, convex or concave, with or without projecting anges. Pro-mesonotal suture strongly impressed. Meso-epinotal suture rarely impressed. Anterior inferior angle of pronotum sharp or spinate. Node massive, but in some species more scale-like, always with a spine on the ventral surface in front. Postpetiole more or less constricted behind. Anterior tarsi with one broad pectinate spur each, middle and posterior tarsi each with one long slender bristle-like spur, sometimes feebly pectinated. Claws bifid.

Female.—Unknown. Probably cannot be distinguished from the worker.

Male.—Mandibles triangular, sometimes feebly dentate. Antennae with thirteen segments. Scapes generally longer than second segment of funiculi. Thorax with mayrian furrows more or less strongly impressed. Wings

with two closed cubital cells. Petiole long and splender, more or less node-like behind, not well defined, a long slender, spine on the ventral surface in front. Postpetiole cone or bell-shaped, constricted behind. Anterior tarsi each with one broad pectinate spur. Middle and posterior tarsi each with one long slender bristle-like spur. Claws bifid.

Genotype *Rhytidoponera araneoides* Le Guill.

Key to the Workers.

1. Occipital border with sharp projecting angles 5
6. Occipital border with rounded projecting angles 8
9. Occipital border with or without feeble projections 12
13. Head truncate behind 63
    14. Occipital border concave in middle, crest prominent 33
    15. Angles bluntly rounded, sculpture coarse 27
    28. Angles sharply rounded, sculpture fine 33
    34. Occipital border short and straight, angles broadly rounded. Crest feeble or absent. Eyes at posterior third of head. Sculpture fine 42
    43. Occipital border concave, sculpture coarse 48
    49. Occipital border convex, no crest, sculpture coarse 51
    52. Occipital border straight or feebly concave in middle, crest feeble. Sculpture coarse 58
    59. Occipital border convex, crest small 63
64. Head elongate, neck-like behind 65

1. Occipital border with sharp projecting angles 5
    2. Angles as long as broad at base, produced backward. Node bluntly pointed above, anterior face strongly convex. Postpetiole and gaster transversely striate. Black. 10-11 mm. *cerastes* Craw.
    3. Angles not as long as broad at base, produced backward and laterally. Node sharply pointed, anterior face concave, posterior face convex. Postpetiole and gaster longitudinally striate. Blackish, gaster brownish, 10-11 mm. .. .. *taurus* For.
    4. Angles short, produced backward and strongly laterally and forward. Node sharp pointed, anterior face straight. Posterior face strongly convex. Gaster transversely striate. Head, thorax and node red, gaster black. 11 mm. *cornuta* Em.
    5. Angles strongly produced laterally and forward, hardly backward. Node cubic, posterior face convex. Gaster longitudinally striate. Reddish brown throughout. 9 mm. *aurata* Rog.
6. Occipital border with rounded projecting angles 8
    7. Angles bluntly pointed, projecting strongly behind and laterally. Node higher than long, faces almost parallel. Gaster longitudinally striate. Black. 10-11 mm. .. *quadriceps* sp. nov.
    8. Angles broadly rounded, produced strongly backward, and feebly laterally and forward. Node longer than high. Gaster transversely striate. Black. 13 mm. *mirabilis* sp. nov.

9. Occipital border with or without feeble projections 12
   10. Angles bluntly pointed, short and curved forward. Pronotum with distinct raised shoulders. Node longer than high, convex behind. Gaster smooth and shining. Black. 12·5-14 mm. . . . . *scabra* Mayr
   11. Angles with a small obsolete tubercle. Shoulders bluntly raised. Node high, slender, sharp pointed, posterior face convex with a deep longitudinal groove. Gaster smooth and shining. Postpetiole with an obsolete longitudinal central groove. Black. 12 mm. . . . . *nudata* Mayr
   12. Angles without projections or tubercles. Shoulders bluntly raised. Node much longer than high, much longer below than above, anterior face vertical, straight, dorsum without longitudinal groove, rounded into posterior face. Spine thorn-like, sharp. Gaster transversely striate. Chocolate brown. 11-12 mm. . . . . *laticeps* For.
13. Head truncate behind. 63
   14. Occipital border concave in middle; crest prominent 33
      15. Angles bluntly rounded, sculpture coarse 27
         16. Node almost cubic, stalk short, anterior face straight, posterior face short, rounded into dorsum. Spine broad at base, reduced suddenly to a slender sharp point. Gaster transversely arched striate. Black. 12 mm. . . . . *glabrior* For.
         17. Node cubic, stalk long, anterior and posterior faces parallel, dorsum flat, posterior edge rounded, spine long and slender. Postpetiole longitudinally arched striate, gaster transversely striate. Blackish brown. 12-13 mm. . . . . *mayri* Em.
         18. Node massive, anterior face vertical, dorsum flat, posterior face short, rounded into dorsum. Ventral spine long, broad and sharp. Postpetiole and gaster transversely striate. Black. 11·5-12 mm. . . . . *occidentalis* sp. nov.
         19. Node dome-shaped, all faces convex, spine long, stout and sharp. Gaster transversely arched striate. Blackish-brown. 11·5 mm. . . . . *petiolata* sp. nov.
         20. Node massive, longer at base than on top. Dorsum slightly longer than posterior face. Gaster transversely arched striate. Black. 12·5 mm. *spoliata,* Em.
         21. Node dome-shaped, ventral spine short, thick and sharp. Postpetiole and gaster transversely arched striate, almost longitudinal in middle. Black 11 mm. . . . . *stridulator,* sp. nov.
         22. Node cubic, faces parallel, dorsum feebly convex, spine long, slender and sharp. Gaster transversely striate. Brown. 11·5 mm. . . . . *socrus* Em.
         23. Node longer than high, faces straight and parallel, dorsum feebly convex. Gaster very finely striate transversely. Chocolate brown. 11 mm. *nitida* sp. nov.

24. Node as long as stalk in front, almost parallel, dorsum rounded into posterior face, spine very long and slender. Gaster very finely and densely striate transversely. Chocolate brown. 11 mm. *dixoni* sp. nov.

25. Node rather low, much longer at base than at top. Posterior face shorter than dorsum into which it is rounded, anterior face sloping forward at an acute angle. Spine long, slender and sharp. Postpetiole transversely arched striate, first segment of gaster longitudinally striate. Blackish brown. 9·5 mm. *gregoryi* sp. nov.

26. Node higher than long, anterior face vertical, inclined forward, dorsum straight, inclined downward behind, both edges sharp. Spine short, slender and sharp. Gaster very finely and densely striate transversely. Bright ferrugineus. 8-8·5 mm. .. *barnardi* sp. nov.

27. Node as high as long, anterior face straight, vertical, posterior face straight, inclined slightly forward above, as long as dorsum, the latter straight. Spine long, parallel, slender and bluntly pointed. Gaster very delicately striate transversely. Bright ferrugineus. 7 mm. .. .. *carinata,* sp. nov.

28. Angles sharply rounded, sculpture fine 33

29. Node cubic, faces parallel, spine three times longer than broad at base, slender and sharp. Gaster very finely and densely striate, transversely arched. Body almost smooth, bright ferrugineus. 10-11 mm. .. *ferruginea* sp. nov.

30. Anterior face of node sloping forward below, posterior face feebly convex inclined forward above, rounded into dorsum. Spine long, broad and sharp pointed. Gaster transversely arched reticulate-striate. Black. 10 mm. .. .. *aciculata* Sm.

31. Node sharply pointed above in front, anterior face vertical, straight, dorsum and posterior face united in a convexity, spine long, broad and bluntly pointed. Gaster transversely striate. Blackish brown. 12 mm. .. .. *cristata* Mayr

32. Node higher than long, parallel, dorsum straight, as long as posterior face. Spine short, thorn-like. Gaster finely and densely reticulate-punctate. Black. 11 mm. .. .. var. *punctiventris* For.

33. Node higher than long, anterior face concave, posterior face straight, vertical, rounded into dorsum. Spine short, thorn-like. Gaster very delicately striate transversely. Brownish red. 9-9·5 mm. .. .. *yorkensis* For.

34. Occipital border short and straight, angles broadly rounded. Crest absent or very feeble. Eyes at posterior third of head. Sculpture fine 42

35. Sides of head very feebly convex, almost straight, crest feeble. Node higher than long, anterior face straight, vertical, dorsum longitudinally grooved, flat, sloping downward and rounded into posterior face. Spine long and sharp, broad at base. Gaster densely and microscopically punctate. Blackish brown. 10 mm. .. .. *punctata* Sm.

36. Sides of head more convex, crest sharp, interrupted at middle. Node longer than high, anterior face vertical, straight, posterior face convex rounded into dorsum, latter flat, with a feeble longitudinal groove, spine long, slender and sharp. Gaster microscopically punctate. Dark brown. 9-9·5 mm. *rufonigra* sp. nov.

37. Sides of head convex, no crest. Epinotum straight, declivity straight, one-third longer, and rounded into dorsum. Node as long as high, anterior face vertical and straight, posterior face straight, sloping forward above, rounded into dorsum, latter flat without longitudinal groove. Spine short, thorn-like. Gaster very finely reticulate-punctate. Chocolate brown. 10 mm. .. .. *flindersi* sp. nov.

38. Head broadest in front, sides convex. Epinotum straight, sloping downward to inferior third of declivity. Node higher than long, faces almost parallel, dorsum sloping downward behind, as long as posterior face. Spine very short, slender and sharp. Gaster densely microscopically punctate. Dark brown. 10 mm. .. .. *levior* Craw.

39. Head parallel to eyes, strongly convex behind. Epinotum strongly convex. Node higher than long, anterior face slightly convex, posterior face straight and vertical, slightly longer than dorsum, spine three times longer than broad at base, slender and sharp. Gaster transversely striate. Dark brown. 8 mm. .. .. *micans* sp. nov.

40. Occipital border feebly convex, crest feeble. Dorsum of epinotum very short, rounded into declivity. Node as long as high, anterior face vertical, straight, posterior face straight, inclined forward above, rounded into dorsum, latter flat, anterior edge sharp. Spine short, slender and sharp. Postpetiole very finely transversely arched striate, first segment of gaster finely striate longitudinally. Chocolate brown. 8-9 mm. .. .. *spatiata* Forel

41. Eyes large. Thorax evenly convex. Node longer than high, anterior face feebly convex, posterior face in some examples concave. Spine slender and sharp, four times longer than broad at base. Postpetiole transversely arched striate, first segment of gaster longitudinally striate. Brown. 7·5-8 mm. *flavicornis* sp. nov.

and sharply pointed. Gaster finely striate transversely. Chocolate brown. 9·5 mm. .. *punctigera* Craw.

51. Epinotum short, rounded into declivity. Node higher than long, posterior face straight and vertical, rounded into the feebly convex dorsum, posterior face strongly concave. Spine thorn-like, very short and sharp. Gaster transversely arched striate. Dark brown. 7 mm. .. .. *reflexa* sp. nov.

52. Occipital border straight or slightly concave in middle, crest feeble. Sculpture coarse 58

53. Epinotum convex to bottom of declivity. Node thin, longer at base than on top, dorsum, anterior and posterior faces feebly convex. Spine short and sharp, twice as long as broad at base. Gaster transversely arched striate. Blackish brown. 7-7·5 mm. *pilosula* sp. nov.

54. Epinotum convex longitudinally. Node high, parallel, all faces straight, dorsum one-sixth shorter than posterior face. Spine thorn-like, short, broad and sharp. Gaster finely and densely striate transversely. Black. 8 mm. .. .. *nigra* sp. nov.

55. Epinotum convex longitudinally. Node higher than long, longest at base, anterior face vertical, straight, posterior face inclined forward above, dorsum flat. Spine very short and sharp. Gaster very finely and densely striate transversely. Brown. 8 mm. .. *hilli* Craw.

56. Epinotum feebly convex from base to bottom of declivity. Node higher than long, both faces parallel, dorsum flat, edges sharp. Spine short, very slender and sharp. Gaster very finely and densely striate transversely. Blackish-brown. 8 mm. .. *eremita* sp. nov.

57. Crest strong, slightly projecting. Epinotum strongly convex from base to foot of declivity. Node higher than long, parallel, anterior face slightly convex, posterior face slightly concave, dorsum flat. Spine short and sharp, thorn-like. Gaster very delicately striate transversely. Blackish brown. 7 mm. *fuliginosa* sp. nov.

58. Epinotum convex longitudinally. Node much higher than long, anterior face straight, sloping forward below, posterior face straight, rounded into and as long as dorsum, anterior edge sharp. Spine thorn-like, short and sharp. Gaster finely striate transversely. Brown, gaster red. 8-9 mm. .. *rufiventris* For.

59. Occipital border convex, crest small 63

60. Crest sharp. Epinotum convex to bottom of declivity. Node as high as long, longer at base than at top, anterior and posterior faces almost straight, dorsum feebly convex. Spine obsolete. Gaster finely and densely striate transversely. Blackish-brown. 7·5-8 mm. .. .. *convexa* Mayr

61. Sculpture fine; colour bright red, otherwise as in *convexa* Mayr. .. .. var. *rufescens* For.

62. Crest small and sharp. Epinotum strongly convex longitudinally. Node much higher than long, anterior and posterior faces vertical, straight and parallel, dorsum short and convex; spine short, slender and sharp. Gaster finely striate transversely. Black with metallic bronze sheen. 6·5-8 mm. .. *violacea* For.

63. Crest small but sharp. Epinotum short, rounded into declivity, the latter straight, twice as long as dorsum. Node higher than long, slightly longer at base than above, anterior and posterior faces straight, dorsum short and convex. Spine thorn-like, short, thick and sharp. Gaster finely striate transversely. Blackish-brown to black, gaster with bright blue or violet sheen. 6-7 mm. .. .. *opacior* Craw.

64. Head elongate, neck-like behind 65

65. Head strongly convex behind eyes, without distinct occipital border. Epinotum sloping downward, slightly concave in middle and rounded into declivity. Node low and dome-shaped. Spine short and sharp. Gaster finely striate transversely. Reddish-brown. 5·5 mm. .. .. *foreli* Craw.

Key to the Males.

1. Head and thorax coarsely rugose 10

11. Head and thorax finely punctate-rugose 18

1. Scape longer than second segment of funiculus. Node low, evenly convex longitudinally. Spine two and one-half times longer than broad at base, sharp. Gaster finely striate longitudinally. Head and thorax brown, gaster red. 10·5 mm. .. .. *taurus* Forel

2. Scape as long as second segment of funiculus. Node convex, highest behind, spine four times longer than broad at base, slender and sharp. Gaster very finely and densely striate, transversely arched, the arch bent backward. Mayrian furrows feeble. Reddish-brown. Gaster red. 9 mm. .. .. *aurata* Rog.

3. Scape three times longer than second segment of funiculus. Node high and strongly convex behind, sloping gradually in front. Spine three times longer than broad at base, slender and sharp. Gaster smooth and shining with traces of fine rugae on sides. Chocolate brown. 12·5 mm. *scabra* Mayr

4. Scape one-fourth shorter than second segment of funiculus. Node as long as stalk in front, convex. Spine slender and sharp, twice as long as broad at base. Gaster very finely and densely reticulate-punctate. Mayrian furrows deeply impressed. Chocolate brown, gaster reddish-brown. 11·5-12 mm. .. .. *laticeps* Forel

5. Scape slightly longer than second segment of funiculus. Node low, feebly convex behind. Spine fully three times longer than broad at base, very slender and sharp. Gaster very finely and densely reticulate, obsolete and almost smooth behind. Brown. 11·5 mm. .. .. *mayri* Em.

6. Scape twice as long as second segment of funiculus. Node high and convex behind. Spine thorn-like, directed backward, twice as long as broad at base. Gaster very finely and densely punctate-reticulate. Blackish-brown. 11 mm. *glabrior* For.

7. Scape barely as long as second segment of funiculus. Petiole slender, almost parallel, convex behind. Spine long, broad and sharp. Postpetiole and gaster very finely and densely reticulate. Reddish-brown. 11 mm. .. .. *stridulator* sp. nov.

8. Scape slightly longer than second segment of funiculus. Node almost straight, feebly convex from apex to base of stalk. Spine slender and sharp, fully twice as long as broad at base. Node and postpetiole finely striate transversely. Gaster smooth and shining, some obsolete striae behind. Reddish-brown, gaster darker. 9·5 mm. *nodifera* Em.

9. Scape one-fourth longer than second segment of funiculus. Node strongly convex, longer than stalk in front, spine very slender and sharp, four times as long as broad at base, directed backward. Gaster very densely reticulate. Blackish-brown. 10·5-11 mm. .. .. *foveolata* Craw.

10. Scape slightly shorter than second segment of funiculus. Node highest and convex behind, sloping gradually in front, spine slender and sharp, one-third longer than broad at base. Node and gaster finely striate transversely. Brown, with metallic violet sheen. Gaster bright metallic green or blue-green. 7·5-8 mm. .. .. *violacea* For.

11. Head and thorax finely punctate-rugose 18

12. Scape as long as second segment of funiculus. Node very feebly convex, almost straight. Spine very short and sharp. Gaster smooth and shining. Chocolate brown, gaster lighter. 10 mm. .. .. *cristata* Mayr

13. Scape slightly shorter than second segment of funiculus. Node low, broadly convex. Spine slender and sharp, twice as long as broad at base. Node and gaster very finely and densely punctate-reticulate. Chocolate brown. 11 mm. *punctiventris* For.

14. Scape as long as second segment of funiculus. Petiole convex above, almost parallel, spine very long, slender and sharp. Head finely and irregularly rugose, with some large, shallow punctures. Postpetiole and gaster very finely and densely reticulate. Blackish-brown. 10·5 mm. *aciculata* Sm.

15. Scape one-eighth shorter than second segment of funiculus. Node convex behind, sloping gradually downward in front. Spine thick and sharp, twice as long as broad at base. Reddish-brown, gaster darker. 9·5-10 mm. .. .. *rufonigra* sp. nov.

16. Scape one-third shorter than second segment of funiculus. Node very little higher than stalk, feebly convex. Spine short and tubercle-like. Brown. 9·5-10 mm. .. .. *levior* Craw.

17. Scape one-fourth longer than second segment of funiculus. Node low and convex, slightly higher behind. Spine very slender and sharp, twice as long as broad at base. Node, gaster and legs very densely delicately reticulate. Chocolate brown. 8·5-9 mm. . . . . *micans* sp. nov.
18. Scape as long as second segment of funiculus. Node high and strongly convex behind, sloping gradually in front. Spine thorn-like, as long as broad at base. Node and gaster very finely and superficially striate transversely. Chocolate brown. 7-8 mm. . . . . *spatiata* For.

Rhytidoponera cerastes Crawley

(Pl. III, fig. 1a.)

Rhytidoponera cerastes Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 584, fig. i, 1925, ☿.

Worker.—Length, 10-11 mm.

Mandibles and clypeus chocolate-brown; head, thorax and legs darker, scapes and gaster black, apex of funiculi and tibiae reddish.

Mandibles very finely and densely striate, with numerous fine, scattered, piligerous punctures. Clypeus longitudinally rugose-striate. Head irregularly rugose on middle, sides and horns, strongly reticulate between the eyes and horns with scattered large shallow punctures. Thorax transversely striate-reticulate, with large, shallow scattered punctures, much coarser on epinotal declivity and node, anterior face of node transversely striate. Gaster very finely striate transversely, with numerous very fine punctures.

Hair yellow, long and erect on clypeus and apex of gaster, very sparse, short and erect on head and body, more abundant, but shorter and suberect on antennae and legs. Bristles on underside of tibiae very long.

Head one-fifth longer than broad, greatly reduced behind eyes, sides convex, occipital corners produced into long horns, almost as long as broad at base, rather sharply pointed, directed backward and slightly outward. Mandibles sharp, edentate. Clypeus convex, bluntly pointed in front. Frontal carinae as long as broad, twice as broad in front as behind. Frontal area deeply impressed. Scapes extend beyond occipital border by almost half their length; second and third segments of funiculi equal in length, one-third longer than first, fourth to tenth gradually shortening, apical not as long as the two preceding. Eyes placed behind the middle of sides. Thorax barely twice as long as broad. Pronotum as long as broad, slightly broader behind than in front, sides feebly concave; there is a shallow longitudinal impression in the middle, pro-mesonotal suture sharply defined but not deep. Mesonotum very slightly broader than long, almost circular. Epinotum parallel. In profile the pronotum and mesonotum form an even convexity, indented at the suture, higher than epinotum, the latter flat on dorsum, rounded into declivity which is as long as dorsum. Node as broad as long, bluntly pointed in front, a deep longitudinal groove extends from the front edge to bottom of posterior face. In profile higher than long, the anterior face slightly convex, sloping backward to base of anterior face, making the node appear somewhat as a pointed cone with the apex slightly forward of the middle; ventral spine short and sharp, about as long as broad at base. Postpetiole one-fourth broader than long, cone-shaped, first segment of gaster one-fourth broader than long, broadest in front, sides strongly convex. Legs long and robust.

Male.—Unknown.

Habitat.—North-Western Australia: Derby district (J. G. Campbell).

Redescribed from a co-type and a dozen specimens from the type nest.

Rhytidoponera taurus Forel.

(Pl. III, figs. 2, 3.)

Ectatomma (Rhytidoponera) cornutum Emery, subsp. *taurus* Forel, Rev. Suisse Zool., xviii, p. 12, 1910, ☿.

Rhytidoponera cornuta Em., r. *taurus* Forel, Arkiv. f. Zool., 9, 16, p. 12, 1916, ☿ ♂.

Rhytidoponera (Rhytidoponera) cornuta Em., subsp. *taurus* Forel, Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Rhytidoponera cornuta Emery, var. *fusciventris* Stitz, Ges. Natrt. Freunde Berl., (8), p. 352, 1911, ☿.

Rhytidoponera cerastes Craw., var. *brevior* Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 586, ☿ ♂.

Worker.—Length, 10-11 mm.

Blackish-brown. Mandibles, funiculi, tarsi and gaster more reddish-brown. Some examples are entirely reddish-brown, others quite black with the gaster reddish-brown.

Mandibles and scapes very finely and densely striate longitudinally. Head coarsely, irregularly, punctate-reticulate. Pronotum, mesonotum, and node coarsely and rather deeply punctate, epinotum coarsely punctate-rugose with a transverse direction, anterior face and groove on top of node transversely striate. Gaster very finely striate longitudinally.

Hair yellow, long and erect on clypeus and apex of gaster, very sparse, short and erect on head and thorax, more abundant on gaster, shorter and adpressed on antennae and legs. Pubescence apparent on funiculi only.

Head fully one-fifth longer than broad, broadest in front, sides convex, occipital border concave, angles sharp pointed, produced backward and slightly outward. Mandibles furnished with numerous minute teeth. Clypeus convex above, bluntly produced and convex in front. Frontal carinae as long as broad in front, fully twice as broad in front as behind. Frontal area deep. Scapes extend beyond occipital corners by barely one-third their length. Second and third segments of funiculi equal length, one-third longer than first, apical not as long as two preceding together. Eyes large and convex placed behind middle of sides. Thorax twice as long as broad. Pronotum one-fifth broader than long, broader behind than in front, the sides concave in the middle, flattened transversely. Mesonotum circular. Epinotum as long as broad. In profile convex longitudinally, dorsal sutures well impressed, dorsum of pronotum feebly concave in middle, dropping abruptly, convex in front, epinotum sloping, convex, from mesonotum to foot of declivity. Node broader than long, oval; with a deep longitudinal impression on dorsum; in profile twice as high as long, triangular, anterior face sloping forward below, concave, anterior face convex, apex sharp, spine at front of ventral face short and sharp, not as long as broad at base. Post-petiole slightly broader than long, somewhat cone-shaped, excision between the segments strongly impressed, first segment of gaster one-fourth broader than long. Legs robust.

Male.—Length, 10·5 mm.

Head and thorax chocolate-brown, mandibles, antennae, node, legs and apical margin of all segments of gaster brown, gaster bright red. Wings with a yellow tinge, nervures brown.

Mandibles, scapes and antennae finely striate longitudinally. Head and thorax coarsely rugose, interstices very finely reticulate and shining between the rugae. Node shining irregularly rugose, the rugae obsolete. Postpetiole shining in middle, finely striate, the striae irregular and obsolete, but with a longitudinally or circularly arched direction. All segments of gaster finely striate longitudinally, with numerous piligerous punctures.

Hair yellow, erect, long and abundant throughout, slightly shorter on gaster, suberect on antennae and legs.

Head one-seventh longer than broad behind, strongly convex behind eyes. Mandibles with eight strong teeth. Clypeus rather flatly convex in front and above. Frontal area oblong, broader than long. Frontal carinae as long as broad in front. Scape one-fifth longer than second segment of funiculi, first segment one-fourth longer than broad. Eyes occupy fully one-third of sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting slightly in front, convex. Mesonotum one-fourth broader than long, strongly convex in front, feebly convex behind, dorsum convex all ways, mayrian and parapsidal furrows deeply impressed; a well-defined longitudinal groove extends from apex to base, but almost obsolete near middle. Scutellum one-fourth broader than long, flattened above. Epinotum strongly convex transversely. In profile pro-mesonotal suture strongly impressed. Pronotum short, erect, convex. Mesonotum strongly convex. Scutellum strongly convex, slightly higher in front than behind, twice as long as high. Metanotum longer than high, dorsum straight. Epinotum sloping downward behind, straight or very feebly concave, declivity short and abrupt, rounded into dorsum. Node hardly defined from above, very slightly broader behind than in front. In profile low and evenly convex from apex to base, the ventral spine two and one-half times longer than broad at base, sharp pointed. Postpetiole one-fourth broader than long, sides strongly convex, broadly cone-shaped. First segment of gaster almost twice as broad as long, much broader behind than in front, sides convex. Strongly constricted between the two segments. Legs short and slender.

Habitat.—Northern Territory: Tennants Creek (J. Field); Alice Springs; Borroloola (G. F. Hill); Alexandria (G. W. Stalker, 1907). *Queensland*: Longreach (C. Barrett). *Western Australia*: Derby (J. G. Campbell); Jigalong (J. Hickmer).

Rhytidoponera cornuta Emery.

(Pl. III, fig. 4.)

Ectatomma (Rhytidoponera) cornutum Emery, Ann. Soc. Ent., Belg., xxxix, p. 347, 1895, ☿.

Rhytidoponera (Rhytidoponera) cornuta Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Rhytidoponera cornuta Em., Forel, Arkiv. f. Zool., 9, 16, p. 11, 1916, ☿ ♂.

Rhytidoponera cornuta Em., Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 585, figs. 1-3, 1925, ☿.

Worker.—Length, 11 mm.

Head, thorax and node reddish-brown, legs brown, gaster brownish or black. Some examples are almost entirely brownish.

Mandibles and scapes very finely and densely striate, with numerous fine shallow punctures. Head, thorax and node densely covered with large deep irregular punctures giving a somewhat thimble-like appearance, there are some transverse rugae on anterior margin of pronotum, the groove on dorsum of node is very finely and densely striate. Postpetiole finely and densely longitudinally arched striate, with numerous fine, shallow punctures. First segment of gaster more finely striate transversely and more finely punctate. Legs very finely striate.

Some long erect yellowish hairs on anterior of clypeus and posterior of gaster, very short and scattered on head and body, shorter, finer and more numerous on antennae and legs.

Head one-fifth broader than long, much broader in front than behind, sides convex, occipital border concave, the angles sharp, projecting upward, outward and slightly forward. Mandibles furnished with numerous denticles. Clypeus broadly produced and convex in front. Frontal carinae as long as broad in front, twice as broad in front as behind. Eyes placed behind the middle of sides. Scapes extend beyond occipital border by barely one-half their length. Second segment of funiculi almost twice as long as first, third to tenth gradually decreasing in length, apical pointed not as long as the two preceding together. Thorax fully twice as long as broad. Pronotum one-third broader than long, the lateral borders straight, parallel, sides concave, giving a pinched-like appearance; pro-mesonotal suture sharply defined. Mesonotum broader than long, broader in front than behind, convex in all directions. Epinotum short, convex, rounded into declivity. In profile the dorsum of epinotum flattened at middle, mesonotum and epinotum convex, the epinotal declivity not apparent. Node triangular on top, the corners rounded, almost one-third broader than long, with a deep, wide longitudinal impression which is widest behind; in profile one-third longer than high, anterior face vertical, anterior-superior border sharp, dorsum and posterior borders united, convex, without traces of a boundary; the ventral surface in front with a long, very slender, almost bristly-like spine. Postpetiole cone-shaped, much broader than long, a deep and moderately wide constriction between the first and second segments, the latter much broader than long, strongly convex behind. Legs robust.

Male.—(after Forel):

> "♂ (noch nicht beschrieben) 11 mm. Langestreckt, Kopf etwas länger als breit, hinten und vorn verschmälert. Ozellen sehr gross. Thorax nicht breiter als der Kopf. Postpetiolus vorn allseitig stark verschmälert. Petiolus mit sichtbarem Knoten. Skulptur ähnlich wie beim ☿, aber Hinterleib und Postpetiolus glatt und glänzend. Rot mit schwarzem Hinterleib (Postpetiolus rötlich). Die Flügel fehlen."

Habitat.—Queensland: Cooktown (type locality), ☿; Laura (E. Mjoberg), ☿ ♂; Daintree River (C. Barrett), ☿; Chillagoe (T. Campbell), ☿. *Northern Territory*: MacArthur River (G. F. Hill), ☿.

Rhytidoponera aurata Roger.

(Pl. III, figs. 5-6.)

Ponera (Ectatomma) aurata Roger, Berl. Ent. Zeitr., v, p. 169, 1861, ☿.
Ectatomma aurata Mayr, Jour. Mus. Godeffroy, xii, p. 91, 1876, ☿.

Rhytidoponera (Rhytidoponera) aurata Emery, Gen. Ins., fasc. 118, p. 37, 1911, ☿.

Rhytidoponera flava Crawley, Ann. Mag. Nat. Hist., 8, xv, p. 232, 1915, ♂.

Worker.—Length, 9 mm.

Head, thorax and antennae chocolate-brown; mandibles, gaster and legs lighter, more ferrugineus.

Mandibles and scapes very delicately striate longitudinally with scattered. very fine, shallow punctures. Head and thorax coarsely punctate-rugose Node circularly striate-rugose with some shallow scattered punctures. Gaster very delicately striate, longitudinally arched on postpetiole, entirely longitudinal on second segment.

Hair yellow, very long and erect on clypeus and apical segments of gaster, very short and erect on remainder of body. Pubescence on funiculi very fine.

Head slightly broader than long, sides strongly convex, occipital border straight, with a strong crest in front, occipital corners sharp, projecting slightly laterally. Mandibles furnished with numerous small sharp teeth. Clypeus convex above, anterior border broadly convex. Frontal carinae barely twice as broad in front as behind. Frontal area large, triangular. Scapes extend beyond occipital border by almost half their length. Second and third segments of funiculi equal length, barely one-third longer than first, apical as long as two preceding together. Eyes large and convex placed behind middle of sides. Thorax fully twice as long as broad. Pronotum barely as long as broad, sides parallel, dorsum flattened. Mesonotum one-fourth broader than long, convex in all directions. Epinotum short, convex transversely. In profile pronotum flattened above, dropping abruptly, convex in front. Epinotum convex from base to apex. Sutures well defined. Node one-third broader than long, broader behind than in front, strongly convex all directions. In profile one-third higher than long, anterior face straight, vertical, anterior superior edge sharp pointed, dorsum flat, at right angles to anterior face, posterior face very short, rounded into dorsum; spine at front of ventral face very long and slender, semi-transparent. Postpetiole broader than long, conical, excision between the two segments rather deep, first segment of gaster broader than long. Legs rather short but robust.

Male.—Length, 9 mm.

Brown, mesonotum darker, gaster red. Wings yellowish with brown nervures.

Mandibles finely striate, longitudinal between frontal carinae. Pronotum transversely rugose. Mesonotum and scutellum coarsely punctate-rugose. Epinotum shining, transversely rugose. Node finely and irregularly rugose. Postpetiole and gaster finely transversely arched striate, the arch bent backwards. Legs shining, very finely reticulate.

Hair yellow, long and erect throughout, shorter and suberect on antennae and legs.

Head one-sixth longer than broad, strongly convex behind eyes. Mandibles with numerous small sharp teeth. Clypeus broadly convex above and in front. Frontal area large, shallow, triangular. Frontal carinae as long as broad in front, broadest behind. Second segment of funiculi as long as scape and almost five times longer than first. Eyes occupy almost half the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting slightly on sides and front. Mesonotum broadly convex in front, straight behind. Mayrian furrows feebly indicated, parapsidal and anterior central furrow sharply impressed. Scutellum one-third broader than long,

much broader in front than behind, anterior border convex, angles sharp, posterior border strongly convex. Mesonotum and epinotum strongly convex transversely. In profile pro-mesonotal suture deeply impressed. Pronotum erect, convex. Mesonotum strongly convex from apex to base. Scutellum dome-shaped. Metanotum as long as high, bluntly pointed. Epinotum convex, sloping downward behind, declivity straight, as long as dorsum. Node parallel, feebly convex behind. In profile convex from apex to base, highest behind. The ventral spine long, very slender and sharp, four times longer than broad at base. Postpetiole one-fifth broader than long, cone-shaped, sides slightly convex. First segment of gaster one-third broader than long, broadest behind, sides convex. Genitalia retracted. Legs long and slender.

Habitat.—Northern Territory: Darwin (G. F. Hill, C. Barrett). *North Queensland*: Mareeba (H. E. Hill).

Rhytidoponera mirabilis sp. nov.

(Pl. III, fig. 7.)

Worker.—Length, 13 mm.

Black. Mandibles, gaster and legs brownish-black, last six segments of funiculi reddish.

Mandibles finely and somewhat irregularly striate longitudinally. Clypeus and frontal carinae longitudinally rugose, head coarsely rugose, the rugae diverging outward and circling downward on the cheeks, transverse at the occipital border. Scapes and tibiae finely striate longitudinally. Thorax coarsely rugose. On the pronotum the rugae irregular or somewhat circular behind, transverse in front; anterior third of mesonotum longitudinally rugose, the posterior two-thirds and whole of epinotum and anterior face of node transversely rugose. Dorsum of node very finely circularly rugose. Postpetiole transversely arched and rather strongly striate, first segment of gaster very finely and densely striate transversely, in addition both segments densely and microscopically punctate.

Hair yellow, very short and bristle-like, confined to anterior of clypeus. Pubescence yellow, very short and adpressed, abundant throughout, slightly longer and more erect on legs.

Head one-fourth longer than broad, very slightly broader in front than at occipital corners, narrowest just behind eyes, occipital border strongly and deeply indented in the middle, the angles strongly rounded and projecting slightly at the sides and in front. Mandibles feebly denticulate. Clypeus strongly convex in front and above. Frontal carinae as long as broad in front. Eyes placed behind the middle of sides. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculi one-third longer than first, apical as long as the two preceding together. Thorax two and one-third times longer than broad. Pronotum one-third broader than long, broader behind than in front, the lateral borders very feebly convex, dorsum flattened, rounded into sides, the latter flattened or feebly concave. Pro-mesonotal suture sharply defined. Mesonotum broader than long, much broader in front than behind, strongly convex in all directions. Epinotum barely twice as long as broad, sides parallel, strongly convex transversely. In profile convex longitudinally, the pronotum almost straight, descending at an obtuse angle, the dorsum of epinotum straight giving the thorax a slightly depressed appearance, rounded into declivity, the latter at about the same angle as pronotum, tooth on lower angle of pronotum obsolete. Node

ovate, twice as broad as long; in profile barely twice as high as long, anterior face concave, dorsum flat, anterior edge sharp, posterior edge rounded into posterior face, latter vertical, shorter than dorsum; the ventral spine fully twice as long as broad at base, thorn-like, directed slightly backward. Postpetiole almost hemispherical, first segment of gaster one-fifth broader than long, strongly convex between the two segments. Legs long and rather slender.

Habitat.—Central Australia: Alice Springs (E. Church, 1930; C. Barrett, 1932).

Described from four examples.

Rhytidoponera quadriceps sp. nov.
(Pl. III, fig. 8.)

Worker.—Length, 10-11 mm.

Black. Mandibles and tarsi brownish, funiculi lighter.

Mandibles finely and densely striate, with very numerous small piligerous punctures. Scapes and legs very finely and delicately striate longitudinally. Clypeus coarsely punctate-rugose. Head more coarsely rugose, the rugae almost parallel between frontal carinae, diverging outward behind. Thorax and node coarsely punctate-rugose. Both segments of gaster very finely and delicately striate longitudinally.

Hair yellow, long and abundant on apex of gaster, shorter on clypeus, very short, erect and moderately abundant on rest of body, antennae and legs.

Head about one-eighth longer than broad, slightly broader in front than behind, sides straight or feebly convex, occipital border deeply concave in middle, occipital angles bluntly rounded very slightly projecting outward. Mandibles sharp, irregularly crenulate, hardly dentate. Clypeus convex above, anterior border straight. Frontal carinae as long as broad in front, twice as broad in front as behind. Scapes extend beyond occipital border by one-third their length; first and third segments of funiculi equal in length one-third shorter than second, apical as long as the two preceding together. Eyes large and convex placed at middle of sides. Thorax twice as long as broad. Pronotum almost one-fourth broader than long, sides convex. Mesonotum one-third broader than long, convex in all directions. Epinotum as long as broad. In profile convex longitudinally, with a deep excision at the pro-mesonotal suture and a distinct drop at the meso-epinotal suture, the dorsum and declivity of epinotum both rather straight. Node one-third broader than long, oval. In profile fully twice as high as long, the posterior and anterior faces parallel, dorsum convex, the ventral spine thorn-like, three times as long as broad at base. Postpetiole fully one-third broader than long, almost hemispherical. First segment of gaster one-third broader than long, sides strongly convex. A strong constriction between the two segments. Legs very robust.

Habitat.—Northern Territory: Tennants Creek (C. Barrett).

Rhytidoponera scabra Mayr.
(Pl. III, figs. 9. 10.)

Ectatomma scabrum Mayr, Jour. Mus. Godeffroy, xii, p. 90, 1876, ☿ ♂.

Rhytidoponera (Rhytidoponera) scabra Emery, Gen. Ins., fasc. 118, p. 38, 1911, ♂ ☿.

Worker.—Length, 12·5-14 mm.

Black. Mandibles, funiculi and legs dark brown.

Mandibles and scapes very finely striate longitudinally. Shining. Head, mesonotum, epinotum and node coarsely and irregularly reticulate-rugose, pronotum transversely striate on anterior half, the striae wide apart, posterior half irregularly reticulate-rugose. Postpetiole transversely curved striate, the striae more or less obsolete in middle, sparsely punctate. First segment of gaster more or less longitudinally striate, the striae obsolete at middle, sparsely punctate. Coxae transversely rugose.

Hair yellow, very short, erect and sparse throughout. No pubescence.

Head slightly longer than broad, broader in front than behind, sides feebly convex in front of eyes, strongly reduced behind, occipital border convex, angles sharp, slightly produced laterally and forward as sharp tubercles. Mandibles edentate. Clypeus strongly convex above and in front. Frontal area large and deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus longer than first and third, apical barely as long as the two preceding together. Eyes large and convex, placed at posterior third of sides. Thorax fully twice as long as broad, sutures well impressed. Pronotum broader than long, broader behind than in front, sides straight, the posterior angles protruding slightly outward and upward, giving a concave appearance to posterior third. Mesonotum one-third broader than long, strongly convex in all directions, the anterior edge bluntly pointed and projecting into pronotum. Epinotum strongly convex transversely. In profile the pronotum and mesonotum forming an even convexity much higher than the epinotum which is also evenly convex, pronotal projection occupying the posterior third of pronotum, large and blunt on top, wart-like. Node one-third broader than long, broadest behind, strongly convex in front, a shallow longitudinal groove on top. In profile twice as high as long, anterior face vertical above, sloping forward below, dorsum convex, sloping backward and downward into posterior face, the spine in front below moderately long, broad and sharp, directed slightly backward. Postpetiole, and first segment of gaster, one-fourth broader than long, both strongly convex on sides. Legs long and robust.

Male.—Length, 12·5 mm.

Chocolate-brown, mandibles, funiculi and tarsi lighter brown. Wings with a brownish tinge, nervures brown.

Mandibles finely striate longitudinally, the striae somewhat broken up by numerous small punctures. Head coarsely and irregularly rugose, the rugae longitudinal on middle of clypeus, densely reticulate between the rugae. Pronotum transversely rugose, densely reticulate between the rugae. Mesonotum coarsely rugose on disc, more finely rugose in front and on sides, interstices on dorsum shining at bottom, densely reticulate on front and sides. Scutellum, epinotum and node coarsely rugose, but finer than on mesonotum, interstices finely reticulate. Gaster shining. Postpetiole smooth in middle, with traces of fine rugae on sides and behind, with numerous shallow obsolete punctures. First segment of gaster smooth, finely reticulate on posterior margin, with numerous small piligerous punctures.

Hair yellow, rather fine, long and very abundant throughout, shorter and suberect on antennae and legs.

Head one-third longer than broad, not much broader behind than in front, strongly convex and not truncate behind. Mandibles with numerous strong sharp teeth. Clypeus broadly convex in front and above. Frontal area large,

triangular, shallow. Frontal carinae as long as broad in front, parallel. Eyes convex, occupying one-third of sides, placed behind middle. Ocelli large and convex. Scapes extend to occipital border. First segment one-third the length of second. Thorax twice as long as broad. Pronotum projecting strongly in front, sloping downward, strongly convex in all directions. Mesonotum as long as broad, broadly cone-shaped. Mayrian furrow not defined. Parapasidal furrow feebly indicated. Scutellum one-fourth broader than long, anterior edge straight, sides and posterior border strongly convex, dorsum convex both ways, with a very feeble longitudinal groove in middle. Constriction between mesonotum and scutellum broad and deep, convex in front. Metanotum three times broader than long, strongly convex transversely. Epinotum broadly convex transversely. In profile pro-mesonotal suture sharply impressed. Pronotum sloping downward and forward at an obtuse angle, feebly convex. Mesonotum strongly convex in front, flat on posterior third. Scutellum low and convex, almost three times longer than high. Metanotum as high as long, convex above. Epinotum feebly convex, almost straight, rounded into declivity, the latter straight, one-fourth longer than dorsum. Node convex all ways, broadest behind. In profile high and strongly convex behind, sloping gradually downward in front, the ventral spine slender and sharp, three times longer than broad at base. Postpetiole one-eighth broader than long, sides strongly convex. First segment of gaster almost twice as broad as long, broadest behind, the constriction between the two segments broad and deep. Genitalia retracted. Legs long and robust.

Habitat.—Queensland: Rockhampton (Mus. Godeffroy); Yeppon (H. J. Carter); Magnetic Island (G. F. Hill); Mareeba (H. E. Hill).

Redescribed from examples in the National Museum collection, received from the Mus. Godeffroy in 1888.

The specimens from Mareeba are much larger and more robust than those from the other localities, but otherwise are identical.

Rhytidoponera laticeps Forel.

(Pl. III, figs. 11-12.)

Rhytidoponera laticeps Forel, Arkiv. f. Zool., 9, 16, p. 12, text-fig. 3, 1915, ☿ ♂.

Worker.—Length, 11-12 mm.

Chocolate-brown. Mandibles, funiculi and legs lighter brown.

Mandibles, scapes, tibiae and apical fourth of femora finely striate longitudinally, basal three-fourths of femora transversely striate, coxae rugose. Clypeus, strongly but not coarsely, striate-rugose. Head strongly and coarsely punctate-rugose, the punctures large and deep, shining at bottom. Pronotum very coarsely and irregularly punctate-rugose, behind, transversely rugose in front. Mesonotum coarsely punctate-rugose. Epinotum very coarsely punctate-rugose, the rugae transverse behind. Node transversely rugose. Anterior face transversely striate. Postpetiole finely but strongly striate transversely arched, with numerous small, shallow scattered punctures. First segment of gaster more finely striate, transversely arched and similarly punctate.

Hairs yellow, long and erect on front of clypeus and apex of gaster, very

short and adpressed elsewhere, moderately abundant throughout. Pubescence apparent only on funiculus.

Head one-seventh longer than broad, sides parallel, straight or very feebly convex, occipital border feebly convex, angles broadly rounded. Mandibles with numerous small sharp teeth. Clypeus broadly convex above, sharply convex in front. Frontal area large and deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus one and one-half times longer than first, third one-eight longer than first, apical barely as long as the two preceding. Eyes rather flatly convex, not projecting at sides, placed behind the middle of sides. Thorax two and three-quarter times longer than broad, pro-mesonotal suture sharply impressed. Pronotum as long as broad behind, convex transversely in front, very weakly convex behind. Mesonotum one-third broader than long, strongly convex in all directions and bluntly pointed in front. Epinotum strongly convex transversely. In profile pronotum convex longitudinally, mesonotum flatly convex, epinotum straight, sloping downward behind and rounded into declivity, the latter as long as dorsum. Node one-third broader than long, strongly convex in all directions. In profile one-fourth higher than long, the anterior face straight, descending at an acute angle, concave near base, dorsum short and straight, rounded into posterior face, anterior superior edge sharp. Ventral spine thorn-like, short, broad and sharp. Postpetiole one-fourth broader than long, strongly convex behind. The constriction between the segments rather wide but not deep. Legs robust.

Male.—Length, 11·5-12 mm.

Mandibles, antennae and legs reddish; head and thorax chocolate-brown, node and gaster lighter brown. Wings with a yellowish tinge, nervures brown.

Mandibles finely and densely striate longitudinally. Head very densely reticulate, sparsely and irregularly rugose, the rugae almost transverse on clypeus, longitudinal between frontal carinae. Thorax very finely striate-reticulate, transverse on pronotum, front of mesonotum and epinotum, irregular elsewhere. Mesonotum with large shallow scattered punctures, almost obsolete in front, rather deep behind. Scutellum coarsely punctate-rugose, the punctures large and shining at bottom. Epinotum with very few shallow punctures. Node and gaster very finely and densely reticulate-punctate.

Hair reddish, moderately abundant, long and erect, short and suberect on scapes and legs.

Head very slightly longer than broad, strongly convex behind. Mandibles with numerous small sharp teeth. Clypeus broadly convex in front and above, with a short feeble carinae on basal fourth. Frontal area large, feebly defined. Frontal carinae slightly longer than broad in front. Second segment of funiculus one-fourth longer than scape, first segment one-fourth broader than long. Eyes large, occupying fully one-half the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum not seen from above. Mesonotum strongly convex in front and on sides, very feebly convex behind, mayrian furrows deeply impressed in front, becoming shallow behind, parapsidal furrows sharply impressed, with a distinct longitudinal groove on anterior third. Scutellum fully one-fourth broader than long, feebly convex in front, strongly convex behind and on sides, dorsum strongly convex, with a feeble longitudinal impression. Epinotum strongly convex transversely. In profile pro-mesonotal suture sharply defined. Pronotum short and vertical, feebly convex. Mesonotum strongly convex. Scutellum dome-shaped fully twice as long as high. Metanotum as high as long, convex on

top. Dorsum and declivity of epinotum united in a feeble convexity dropping at an obtuse angle. Node not distinct from above, slightly broader behind than in front. In profile low, convex above, fully as long as the stalk in front. Ventral spine long, slender and sharp, twice as long as broad at base. Postpetiole almost one-fourth broader than long, cone-shaped. First segment of gaster fully one-third broader than long, broader behind than in front, sides convex. The constriction between the two segments deeply indented. Genitalia retracted. Legs long and slender.

Habitat.—North Queensland: Kuranda (T. Greaves; C. Barrett); Cape York (W. B. Barnard).

The shape of the head separates this species from all others.

Rhytidoponera glabrior Forel.

(Pl. III, figs. 13, 14.)

Ectatomma (Rhytidoponera) mayri Em. subsp. *glabrius* Forel, Fauna Sudwest. Austrl., i, p. 268, 1907, ☿.

Rhytidoponera (Rhytidoponera) mayri Em. subsp. *glabrior* Emery, Gen. Insect., fasc. 118, p. 38, 1911, ☿.

Rhytidoponera mayri Em. r. *glabrior* Forel, Bull. Soc. Vaudoise des Sc. Nat., xliv, p. 174, 1913, ☿ ♂.

Worker.—Length, 12 mm.

Black. Mandibles, funiculi and tarsi dark brown.

Mandibles finely and densely striate longitudinally. Scapes and tibiae densely and delicately striate longitudinally. Clypeus coarsely rugose longitudinally. Head coarsely punctate-rugose, longitudinal between frontal carinae, diverging outward behind and encircling the antennal fovea, some finer transverse rugae at occipital border; the interstices very finely and densely reticulate. Pronotum very coarsely and irregularly rugose, somewhat transverse in front, longitudinally arched behind. Mesonotum coarsely punctate-rugose, the punctures very wide and shallow. Epinotum coarsely punctate-rugose as on mesonotum but more transverse, coarser on declivity than on dorsum. Some fine transverse striae at junction with mesonotum; the whole thorax densely and very finely reticulate between interstices. Node coarsely reticulate with some large deep punctures, anterior face transversely striate. Both segments of gaster finely and densely striate transversely, with small scattered piligerous punctures. Femora finely reticulate.

Hair brownish, very short, erect and sparse throughout. No pubescence.

Head one-fifth longer than broad, sides feebly convex, occipital border feebly convex with a slight depression in the middle, angles rounded, slightly projecting in front, with indications of a crest. Mandibles with small irregular denticles. Clypeus broadly convex above and in front. Frontal area triangular, large and deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus one-third longer than first, and slightly longer than third, apical as long as the two preceding together. Eyes placed just in front of posterior third of sides. Thorax fully twice as long as broad, pro-mesonotal suture sharply impressed, meso-epinotal suture feebly impressed. Pronotum one-third broader than long, sides and dorsum feebly convex. Mesonotum one-fifth broader than long, strongly convex in all directions, anterior edge

bluntly pointed. Epinotum strongly convex transversely. In profile sutures strongly defined, the pronotum sloping downward in front, feebly convex. Mesonotum convex, slightly higher behind than epinotum, the latter straight or feebly convex above, rounded into declivity and descending abruptly, concave in middle, shorter than dorsum. Node almost twice as broad as long, dorsum, sides and front strongly convex, more feebly convex behind. In profile rather massive, one-third higher than long, top portion longer than high, anterior face straight and vertical, with practically no stalk in front, posterior face inclined forward, convex; dorsum flat, longer than posterior face, both edges sharply rounded, the ventral spine broad and plate-like on basal half, apical half slender and sharp, as long as basal half. Postpetiole one-third broader than long, strongly convex in front. First segment of gaster one-third broader than long, strongly convex behind. The constriction between the two segments wide but not deep. Legs long and robust.

Male.—Length, 11 mm.

Blackish-brown. Mandibles, antennae and legs chocolate-brown. Wings with a yellowish tinge, nervures brown.

Mandibles rather coarsely striate-rugose longitudinally. Clypeus punctate-rugose, the punctures wide and very shallow densely reticulate at bottom. Head irregularly punctate-rugose, the punctures shallow and scattered, finely and densely reticulate. Pronotum transversely punctate-rugose, the punctures deep, densely reticulate at bottom. Mesonotum and scutellum coarsely punctate-rugose, the punctures large and deep, shining at bottom, interstices densely reticulate. Epinotum coarsely and irregularly rugose, transversely rugose on declivity. Node and postpetiole very finely and densely punctate-reticulate. First segment similarly but more superficially reticulate.

Hair yellow, short, erect and abundant throughout, shorter on antennae and legs.

Head fully one-fifth longer than broad, strongly convex behind eyes. Mandibles with numerous fine denticles. Clypeus broadly convex in front and above. Frontal area large, triangular and shallow. Frontal carinae as long as broad in front. Second segment of funiculus half as long as scape and three times longer than first. Eyes occupy barely one-third of sides. Ocelli large and convex. Thorax twice as long as broad. Pronotum projecting in front of mesonotum, strongly convex. Mesonotum broader than long, broadly cone-shaped in front, convex behind, mayrian furrows wide and shallow, anterior central groove and parapsidal furrows sharply impressed. Scutellum one-third broader than long, strongly convex all ways. Metanotum small and triangular. Epinotum convex transversely. In profile pro-mesonotal suture deeply impressed. Pronotum erect, projecting and strongly convex. Mesonotum strongly convex from apex to base. Scutellum fully twice as long as high, dome shaped. Metathorax as long as high, bluntly pointed. Dorsum of epinotum feebly convex, sloping downward behind, declivity as long as dorsum, at an acute angle, straight, rounded into dorsum. Node convex, broadest behind. In profile rather low and strongly convex, particularly behind. The ventral spine thorn-like, directed slightly backward, twice as long as broad at base. Postpetiole one-third broader than long, sides strongly convex. First segment of gaster barely one-third broader than long, slightly broader behind than in front, sides convex. The constriction between the two segments deep and narrow. Legs long and slender.

Habitat.—Western Australia: Eradu; Mullewa; Ajana; Yalgoo (J. Clark); Mingengew (L. Glauert).

Rhytidoponera mayri Emery

(Pl. III, figs. 15-16.)

Ectatomma (Rhytidoponera) mayri Emery, Bull. Soc. Ent., Italy, xv, p. 150, nota, 1883, ☿.

Ectatomma (Rhytidoponera) mayri Forel, Fauna Sudwest Austrl., i, p. 268, 1907, ☿.

Rhytidoponera (Rhytidoponera) mayri Emery, Gen. Insect., fasc., 118, p. 38, 1911, ☿.

Worker.—Length, 12-13 mm.

Blackish-brown. Mandible, funiculi and legs brown.

Mandibles, scapes and tibiae finely striate longitudinally, clypeus coarsely rugose, somewhat longitudinally. Head coarsely punctate-rugose, the rugae longitudinal in middle, diverging outward behind. Thorax very coarsely punctate-rugose, the punctures shining at bottom, the rugae with a transverse direction on mesonotum and front half of pronotum. Node more finely punctate-rugose, the rugae circular. Postpetiole finely striate, longitudinally arched behind, more transverse in front. First segment of gaster very finely striate transversely. Both segments with very fine scattered punctures. Femora finely reticulate and with small scattered punctures.

Hair yellow, long and erect on front of clypeus and apical segments of gaster, very short and erect elsewhere, abundant throughout. Pubescence only on funiculi.

Head one-sixth longer than broad, broadest in front, sides convex, occipital border slightly concave in middle, angles rounded, a weak crest from angles to near middle of border, interrupted by depression, slightly projecting forward. Mandibles feebly denticulate. Clypeus strongly convex above and in front. Frontal area large and deep, heart-shaped. Frontal carinae rather flat above, as long as broad in front. Scapes extend beyond occipital border by barely half their length. Second segment of funiculus one-sixth longer than first, third very slightly longer than first, apical shorter than the two preceding together. Eyes large and convex, placed behind the middle of sides. Thorax not twice as long as broad, pro-mesonotal suture sharply impressed, meso-epinotal suture indicated. Pronotum as long as broad, sides almost parallel, straight, dorsum feebly convex transversely. Mesonotum one-fourth broader than long, convex in all directions, bluntly pointed in front. Epinotum strongly convex transversely. In profile pronotum convex, sloping downward in front. Mesonotum convex, higher than epinotum, the latter straight on basal half then rounded into declivity, strongly convex, declivity as long as dorsum. Node one-third broader than long, almost straight behind, feebly convex, sides and front strongly convex. In profile the anterior and posterior faces high, vertical and parallel, the dorsum flat sloping slightly downward behind and rounded into posterior face, anterior edge sharp, the ventral spine long, straight and sharp. Postpetiole fully one-fourth broader than long, much reduced, or broadly cone-shaped in front. First segment of gaster one-fourth broader than long, strongly convex behind. The constriction between the two segments sharply marked but not deeply impressed. Legs long and robust.

Male.—Length, 11·5 mm.

Brown, antennae and legs lighter reddish-brown. Eyes black, ocelli yellow. Wings hyaline, with a slight yellowish tinge, veins brown.

Mandibles finely striate longitudinally. Head and thorax coarsely punc-

tate-rugose, the punctures poorly defined on head, wide and shallow on thorax. Epinotum and declivity transversely rugose. Node very finely and densely reticulate, with three or four transverse rugae on the middle. Gaster shining. Postpetiole finely and densely reticulate. First segment of gaster smooth, the fine reticulation almost obsolete. Legs very finely reticulate.

Hair reddish, erect, long and abundant on body, suberect and shorter on antennae and legs.

Head as long as broad, much broader behind than in front, occipital border short and straight, sides strongly convex. Mandibles strongly dentate. Clypeus strongly produced and convex in front, convex above with a slight depression in front. Frontal carinae as long as broad in front, much broader behind, not covering the antennal insertions in front. Scapes extend to anterior edge of posterior ocelli. Second segment of funiculus fully one-third longer than first, apical pointed, one-fourth longer than preceding. Eyes large and convex, placed at middle of sides, and ocupying half of the sides. Ocelli large and projecting. Thorax barely twice as long as broad. Pronotum hardly seen from above. Mesonotum one-fourth broader than long, broadly cone-shaped in front, mayrian furrows very feebly indicated, parapsidal furrows sharply impressed; a deep and wide excision between scutellum and mesonotum. Scutellum one-third broader than long, anterior edge straight, sides and posterior edge convex, a strong longitudinal groove in the middle above. Mesonotum erect, broadly triangular. Epinotum strongly convex transversely. In profile pronotum erect, vertical, feebly convex. Mesonotum erect in front, strongly and evenly convex from base to apex. Suture between pro-mesonotum sharply but not deeply impressed. Scutellum slightly longer than high, dome-shaped. Metanotum erect, bluntly pointed, as high as long at base. Epinotum strongly convex from base to foot of declivity. Node scarcely defined, very slightly wider than stalk in front, sides convex. In profile one-fourth higher than stalk in front, broadly convex, the ventral spine fully three times as long as broad at base, very slender and sharp. Postpetiole one-third broader than long, cone-shaped. First segment of gaster one-third broader than long, much broader behind than in front, sides convex. Genitalia retracted. Legs long and slender.

Habitat.—South Australia: Mt. Lofty (A. H. Elston). *New South Wales*: Broken Hill (F. Shepherd).

Rhytidoponera stridulator sp. nov.

(Text fig. 1.)

Worker.—Length, 11 mm.

Black. Mandibles, antennae and legs blackish-brown.

Mandibles and scapes very finely striate longitudinally. Clypeus coarsely rugose, the rugae longitudinal. Head coarsely rugose, the rugae diverging outward behind, very finely and densely reticulate between rugae. Thorax and node coarsely and irregularly rugose, somewhat transverse on front of pronotum and the epinotum. Postpetiole and first segment of gaster strongly arched transversely striate, almost longitudinal in middle, striae strongest on postpetiole. Legs densely reticulate.

Hair yellow, short, erect and abundant throughout, longer on front of clypeus and apical segments of gaster.

Head one-sixth longer than broad, broadest in front, occipital border

straight or feebly convex, angles sharply rounded, produced laterally and slightly forward, crest feeble, interrupted at middle. Mandibles with numerous small sharp teeth. Clypeus strongly convex above and in front. Frontal area large and shallow. Frontal ridges as long as broad in front, parallel behind. Scapes extend fully one-third their length beyond occipital border. Second and third segment of funiculus equal in length, each barely twice as long as second, apical shorter than the two preceding together. Eyes projecting slightly at posterior third of sides. Thorax twice as long as broad, sutures well defined. Pronotum almost one-third broader than long, feebly convex transversely, sides strongly compressed. Mesonotum almost one-third broader than long, strongly convex in all directions. Epinotum one-fifth longer than broad, convex transversely. In profile sloping downward in front, convex at apex and base, straight in middle. Mesonotum strongly convex. Epinotum lower than mesonotum, straight, rounded into declivity, the latter straight, at an obtuse angle. Node one-third broader than long, oval. In profile longer than high and longer than the short stalk in front, dome-shaped; the ventral spine short, thick and sharp. Postpetiole one-fourth broader than long, dome-shaped. Constriction between postpetiole and gaster sharp and deep. First segment of gaster one-fourth broader than long, strongly convex behind and on sides. Legs long and robust.

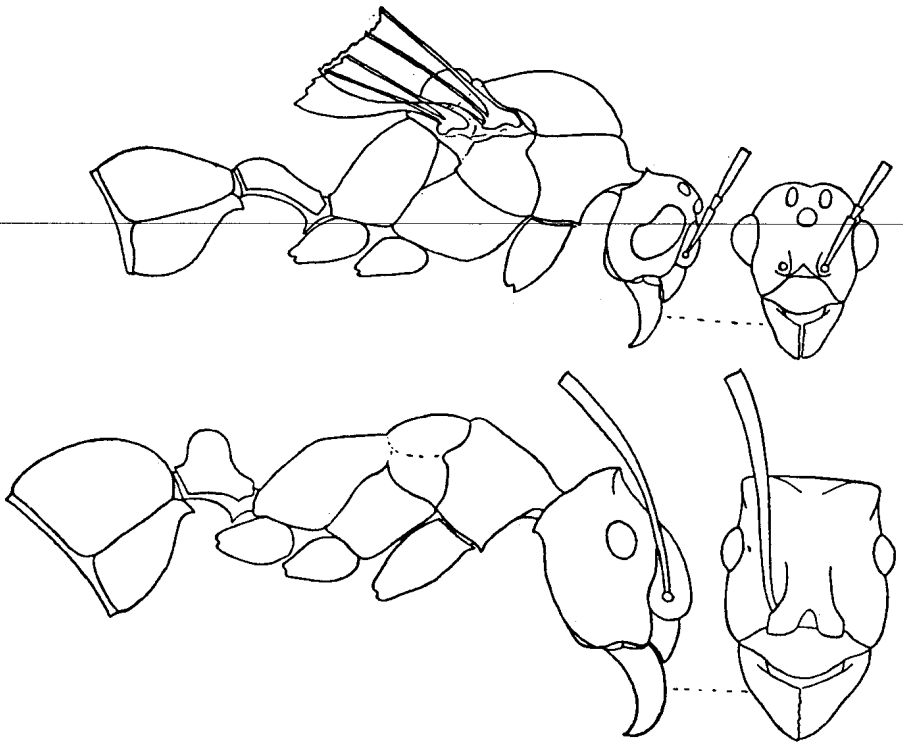


FIG. 1. RHYTIDOPONERA STRIDULATOR sp. nov.
Male above; worker below.

Male.—Length, 11 mm.
Reddish-brown throughout, wing nervures darker.
Mandibles finely striate. Clypeus, head and thorax coarsely and irregu-

larly rugose, epinotum almost transversely rugose. Node finely rugose transversely. Gaster very finely and densely reticulate.

Hair reddish-yellow, short, erect and abundant throughout.

Head strongly convex behind eyes, strongly but narrowly indented in middle. Mandibles with numerous small sharp teeth. Clypeus broadly convex in front and above. Frontal area large and shallow. Frontal carinae not as long as broad in front. Scapes barely as long as second segment of funiculus, the latter fully four times longer than first segment, apical barely one-fourth longer than preceding segment. Eyes occupy one-third of sides, placed at middle. Ocelli prominent. Thorax fully twice as long as broad. Pronotum projecting slightly beyond mesonotum, front and sides strongly convex. Mesonotum as long as broad, broadly convex in front, mayrian furrows feebly impressed, parapsidal furrows sharply impressed, central furrow deeply impressed from apex to base. Scutellum one-third broader than long, straight in front, strongly convex behind and on sides, a deep, longitudinal groove on top. Epinotum feebly convex transversely. In profile pronotum erect feebly convex. Mesonotum strongly convex from apex to base. Scutellum dome-shaped, longer than high. Metanotum convex in front, concave behind, higher than long. Epinotum strongly convex from base to apex. Node broadest behind, sides concave. In profile almost parallel, convex behind, ventral spine long and sharp. Postpetiole almost one-third broader than long, cone-shaped, constriction deep and wide. First segment of gaster one-third broader than long, broadest behind, sides convex. Genitalia retracted. Legs long and slender.

Habitat.—New South Wales: Twenty miles north of Bourke (A. H. Wetherly, 1935).

Type in collection, Department of Entomology, C.S.I.R., Canberra.

Described from eighteen workers and two males.

Near *R. mayri* Emery but readily separated by the shape of the head and node, also by the sculpture.

Rhytidoponera occidentalis sp. nov.

(Text fig. 2.)

Worker.—Length, 11·5-12 mm.

Head, thorax and node black. Mandibles, antennae, legs and gaster blackish-brown; apex of mandibles and funiculi reddish.

Mandibles finely striate longitudinally. Scapes and frontal carinae and tibiae very finely and densely striate longitudinally. Clypeus strongly striate-rugose longitudinally. Head, thorax and node coarsely and irregularly rugose, with a transverse direction on front of pronotum and on epinotum, the rugae densely reticulate at bottom. Postpetiole and gaster finely, densely and transversely striate.

Hair yellow, long, slender and erect on front of clypeus, shorter and more numerous at apex of gaster. Sparse, very short and adpressed on body, scapes and legs.

Head one-fifth longer than broad, broadest in front, sides very feebly convex, almost straight, occipital border slightly concave, angles sharply rounded, projecting slightly forward and very feebly outward at sides, crest sharp and strong at angles, obsolete in middle. Mandibles crenulate, teeth not defined. Clypeus broadly convex in front and above. Frontal area shallow.

Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus almost twice as long as first and one-fourth longer than third, apical segment as long as the two preceding together. Eyes rather small, placed at the posterior third of sides. Thorax fully twice as long as broad, sutures feebly impressed. Pronotum one-third broader than long, sides slightly compressed behind, flatly convex transversely above. Mesonotum one-fourth broader than long, strongly convex in all directions. Epinotum convex transversely. In profile sutures well defined. Pronotum sloping downward and forward, dorsum flat, convex at base and apex. Mesonotum convex, high. Epinotum strongly convex. Node one-third broader than long, strongly convex in front, flatly

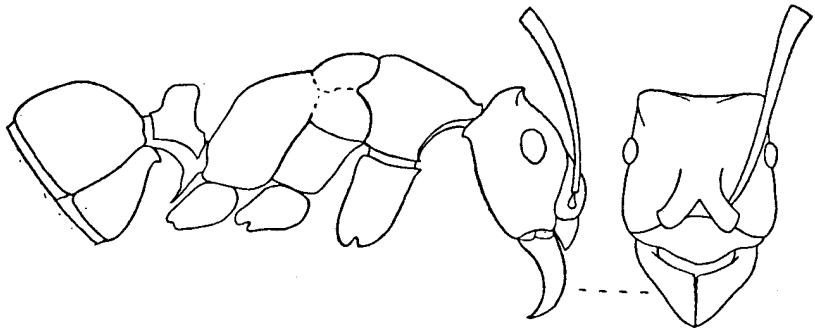


FIG. 2. RHYTIDOPONERA OCCIDENTALIS sp. nov.
Worker.

convex behind. In profile longer than high, anterior face vertical, straight, concave at base, posterior face short, straight, rounded into dorsum, the latter straight, slightly higher in front than behind, anterior edge sharply rounded; ventral spine long and sharp, almost three times as long as broad at base. Postpetiole fully one-third broader than long, strongly convex in front and on sides. Constriction between postpetiole and gaster deep and wide. First segment of gaster one-fourth broader than long, sides strongly convex. Legs long and robust.

Male.—Unknown.

Habitat.—*Western Australia*: Wadgingarra, north of Yalgoo (L. Glauert). Type in the Western Australian Museum, Perth.

Near *R. mayri* Emery, but readily separated by the formation of the thorax and node, sculpture and pilosity.

Rhytidoponera nudata Mayr

(Pl. IV, fig. 17.)

Ectatomma nudatum Mayr, Jour. Mus. Godeffroy, xii, p. 91, 1876, ☿.

Rhytidoponera (Rhytidoponera) nudata Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 12 mm.

Head, thorax and node blackish-brown, gaster black. Mandibles and scapes chocolate-brown, funiculi and legs lighter brown.

Mandibles and scapes very finely striate longitudinally. Head coarsely punctate-rugose, the punctures large and deep, shining at bottom, interstices very finely striate-reticulate. Pronotum very finely and superficially striate, transversely arched in front, longitudinally arched behind, the basal third with large deep shining punctures. Mesonotum shining, transversely striate, the striae obsolete, numerous large shining punctures. Epinotum shining, transversely arched striae obsolete in front, stronger behind, basal half without punctures, apical half with obsolete punctures. Gaster smooth and shining with sparse small obsolete punctures. Legs shining with scattered piligerous punctures.

Hair yellow, long and erect on front of clypeus and apex of gaster, very short, fine and adpressed on antennae and legs, none elsewhere.

Head fully one-sixth longer than broad, broadest in front, sides feebly convex, occipital border strongly convex, not truncate but slightly produced as a short neck behind, occipital angles rounded. Mandibles feebly dentate. Clypeus convex above and in front. Frontal area triangular, large but not deep. Frontal carinae as long as broad in front, somewhat raised in front. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculus one-fifth longer than third, apical as long as the two preceding together. Eyes placed just behind the middle of sides. Thorax two and one-half times as long as broad, sutures sharply defined. Pronotum as long as broad on top behind, sides almost parallel on top, greatly swollen outward below, dorsum convex transversely in front with a faint longitudinal impression continued to base, basal third with a deep and wide depression at each side of median impression, giving the shoulders a raised appearance. Mesonotum one-fifth broader than long, strongly convex in all directions. Epinotum strongly convex transversely. In profile pronotum convex on basal half, straight and sloping downward in front, abruptly truncate at apex. Front third of mesonotum straight, posterior two-thirds straight but dropping at an obtuse angle and abruptly truncate, giving a very short posterior face or declivity. Epinotum straight, rounded into declivity, the latter straight at an obtuse angle as long as dorsum. Node one-third broader than long, straight behind, converging in front to a broad blunt point, a deep longitudinal groove on dorsum. In profile the anterior face high and concave, dorsum and posterior face united in a convexity, the ventral spine very short, thick and sharp. Postpetiole fully one-fourth broader than long, strongly convex in front. First segment of gaster one-fourth broader than long, strongly convex. The constriction between the segments deep and wide. Legs long and robust.

Male.—Unknown.

Habitat.—*Queensland*: Gayndah (type locality).

Redescribed from a specimen in the National Museum collection received from the Museum Godeffroy in 1888.

Rhytidoponera petiolata sp. nov.

(Pl. IV, fig. 18.)

Worker.—Length, 11·5 mm.

Blackish-brown, apical segments of funiculi reddish-brown.

Mandibles finely striate longitudinally, strongly punctate. Scapes and tibiae very delicately striate longitudinally. Clypeus longitudinally rugose. Head

irregularly and rather coarsely rugose, somewhat longitudinal between the frontal carinae diverging outward behind, more transverse near border, interstices densely and finely reticulate, with wide, very shallow, obsolete punctures scattered sparsely between the rugae. Thorax very finely and densely reticulate. Pronotum coarsely rugose transversely but irregularly. Mesonotum and epinotum coarsely punctate-rugose, the rugae transverse at epinotal declivity. Node coarsely punctate-rugose, groove in middle not punctate. Gaster very finely striate, transversely arched, with numerous small punctures. Femora reticulate with fine small punctures.

Hair yellow, long and erect, but sparse on front of clypeus and apex of gaster, shorter and abundant on rest of body, suberect on antennae and legs.

Head one-fifth longer than broad, sides feebly convex, occipital border concave in middle, angles sharply rounded, slightly projecting in front, the projection formed by a sharp crest on angles only. Mandibles very feebly denticulate. Clypeus broadly convex in front and above. Frontal area deep in front, shallow behind. Frontal ridges as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculus one-fourth longer than first and one-fifth longer than third, apical barely as long as the two preceding together. Eyes placed in front of posterior third of sides. Thorax two and one-half times longer than broad, pro-mesonotal suture weakly defined. Pronotum one-fifth broader than long, sides feebly depressed, dorsum feebly convex transversely. In profile sutures feebly defined. Pronotum feebly convex in front and behind, rather flat in middle. Mesonotum and epinotum almost straight, feebly depressed, or concave, near junction, declivity at an obtuse angle, straight below, rounded into dorsum. Node barely one-third broader than long, posterior face straight, front and sides strongly convex, dorsum convex both ways, with a deep and rather wide longitudinal groove. In profile showing a distinct stalk in front, the top portion twice as long as high behind, dome-shaped, all faces convex. The ventral spine, stout and sharp, barely twice as long as broad at base. Postpetiole fully one-fourth broader than long, sides and front broadly convex. First segment of gaster barely one-fourth broader than long, strongly convex behind. Legs robust.

Male.—Unknown

Habitat.—*South Australia*: Lake Killalpaninna (Prof. J. W. Gregory, 1903).

Described from four specimens.

Rhytidoponera spoliata Emery.

(Pl. IV, fig. 19.)

Ectatomma (Rhytidoponera) spoliatum Emery, Ann. Soc. Ent. Belg., xxxix, p. 348, 1895, ☿.

Rhytidoponera (Rhytidoponera) spoliata Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 12.5 mm.

Black, mandibles, funiculi and legs brown.

Mandibles and scapes very finely and densely striate longitudinally and very finely punctate. Legs and coxae finely reticulate. Clypeus longitudinally striate-rugose, coarser at middle than at sides. Head rather coarsely striate-

rugose, transverse behind the eyes, longitudinal between the frontal carinae, circling round the antennal fovea and continuing longitudinal on cheeks, smooth and highly polished between the striae. Thorax striate-rugose as on head. Pronotum transversely arched striate-rugose, more irregular and puncture-like behind. Mesonotum irregularly striate-rugose. Epinotum transversely striate-rugose, coarser behind than in front. Node circularly striate. Both segments of gaster transversely arched, striate very finely and with numerous fine punctures.

Hair yellow, short and erect, moderately abundant throughout, longer on clypeus and apex of gaster.

Head one-fifth longer than broad, broader in front than behind, sides straight to anterior fourth then strongly convex. Occipital border straight, angles bluntly rounded, a prominent ridge or crest, interrupted and depressed in the middle, projects feebly at each of the angles. Mandibles sharp, edentate. Clypeus narrow, rather flatly convex above, with a distinct depression in the middle joining with frontal area, strongly convex in front. Frontal carinae as long as broad in front, twice as broad in front as behind. Frontal area large and deep. Scapes extend beyond occipital border by more than one-third their length. Second segment of funiculus one-fourth longer than first, third slightly shorter than second, apical as long as the two preceding together. Eyes placed behind the middle of the sides. Thorax two and a half times longer than broad, pro-mesonotal suture deeply impressed, meso-epinotal suture feebly indicated. Pronotum one-fifth broader than long, sides almost parallel, concave in the middle, feebly convex transversely with a slight depression in the middle behind making the hind angles somewhat shoulder-like. Mesonotum one-fifth broader than long, broader in front than behind. Strongly convex in all directions. Epinotum strongly convex transversely. In profile pronotum flat, sloping downward and truncate in front. Mesonotum evenly convex. Dorsum of epinotum straight, rounded into declivity, the latter as long as dorsum. Node one-fourth broader than long, oval. In profile fully twice as high as long, the anterior face descending at an acute angle, slightly concave, posterior face vertical, straight, slightly shorter than dorsum, the latter straight, anterior and posterior edges sharp; the ventral spine long, slender and sharp. Postpetiole fully one-fourth broader than long. First segment of gaster one-fifth broader than long, sides strongly convex. Constriction between both segments sharp and deep. Legs robust.

Male.—Unknown.

Habitat.—North Queensland: Mutchilba (A. D. Selby).

Rhytidoponera socrus Forel.

(Pl. IV, fig. 20.)

Ectatomma (Rhytidoponera) socrus Forel Ann. Soc. Ent., Belg., xxxvii, p. 236, 1894, ☿.

Ectatomma (Rhytidoponera) socrus Forel, Wheeler, Jour. New York Ent. Soc., xvii (i), p. 25, 1909, ☿ ♂.

Rhytidoponera (Rhytidoponera) socrus Emery, Gen. Insect., fasc. 118, p. 38, 1911, ☿ ♂.

Worker.—Length, 11·5 mm.

Light chocolate-brown, mandibles, antennae and legs lighter.

Mandibles, scapes and tarsi very finely and densely striate longitudinally.

Clypeus longitudinally striate-rugose, head coarsely striate-rugose, transverse behind the eyes, longitudinal between frontal carinae, curving sharply outward then downward, longitudinal on cheeks, encircling the antennal fovea. Thorax coarsely striate-rugose, more irregular on the posterior half of pronotum. Node circularly striate, much finer than on thorax. Postpetiole finely transversely arched striate, gaster transversely striate. Coxae strongly reticulate.

Hair yellow, rather long on clypeus and apex of gaster. Short and erect on head and body, shorter and adpressed on anntennae and legs. Pubescence only on funiculus.

Head one-fifth longer than broad, much broader in front than behind, sides convex in front almost straight behind, occipital border straight or very feebly convex with a strong ridge in front interrupted at the middle, angles blunt. Mandibles finely denticulate with some irregular larger teeth. Clypeus rather flatly convex above, slightly depressed behind at frontal area, strongly convex in front. Frontal area large and deep. Frontal carinae as long as broad in front, twice as broad in front as behind. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal in length, very slightly shorter than second, apical shorter than the two preceding together. Eyes placed at the posterior third of sides. Thorax fully twice as long as broad, sutures well defined. Pronotum one-fifth broader than long, sides almost parallel, feebly compressed at middle, dorsum feebly convex transversely. Mesonotum one-fifth broader than long, convex in all directions. Epinotum strongly convex transversely. In profile the pronotum sloping downward in front, rather flat at middle. Mesonotum evenly convex, raised slightly higher than epinotum, the latter feebly convex, rounded into declivity without traces of a boundary, declivity shorter than dorsum. Node one-third broader than long, oval. In profile twice as high as long, anterior and posterior faces straight, parallel, dorsum feebly convex, anterior edge feebly rounded, posterior edge strongly rounded; the ventral spine long, slender and sharp, directed slightly forward. Postpetiole one-third broader than long, almost hemispherical. First segment of gaster one-fourth broader than long, sides strongly convex; the excision between the two segments sharply defined but not deep. Legs long and slender.

"*Male.*—Length, 11 mm. (after Wheeler).

"Head, including the eyes, about as long as broad, rounded behind, without any traces of the posterior angles or postocular crest. Mandibles well-developed, simliar to those of the worker. Antennae long and slender, scapes fully two-thirds as long as the second funicular joint, first funicular joint as long as broad; joints 2-12 elongate, gradually diminishing in length distally. Pronotum with prominent inferolateral spines like the worker. Mesonotum and scutellum convex; epinotum flattened as in the worker. Petiole about two and one-half times as long as broad, but little narrower in front than behind, with prominent ventral spine and anterosuperior angles and a low, rounded node. Gaster more slender than that of worker. Legs long and slender.

"Opaque; mandibles finely and densely striated. Head and clypeus reticulate-rugulose throughout, the former foveolate posteriorly. Pronotal sculpture like that of the worker. Remainder of thorax more coarsely reticulate-rugose than the head, rugae on base of epinotum longitudinal. Petiole and gaster somewhat shining, shagreened.

"Pilosity and colour as in the worker, posterior gastric segments broadly yellow at the base. Wings infuscated, with black stigma."

Habitat.—New South Wales: Darling River; Broken Hill.

Rhytidoponera nitida sp. nov.

(Pl. IV, fig. 21.)

Worker.—Length, 11 mm.

Mandibles, head, scapes, thorax and node dark chocolate-brown, edges of mandibles, funiculi, gaster and legs reddish brown.

Mandibles, scapes, and tibiae very finely and densely striate longitudinally, with numerous very small piligerous punctures. Clypeus coarsely rugose longitudinally. Head coarsely rugose, the rugae longitudinal between frontal carinae, diverging outward and descending on cheeks encircling the antennal fovea, transverse on posterior fourth and occiput, a few very large, shallow, obsolete, punctures between the rugae. Pronotum transversely rugose behind. Dorsum of epinotum transversely rugose-striate, more coarsely rugose on declivity, sides of thorax more finely striate connecting with striae on dorsum. Node circularly rugose on top, transversely striate in front and behind. Postpetiole finely and densely striate, transversely arched, with very numerous small piligerous punctures. First segment of gaster with finer, more arched striae and similar punctures. Femora very finely reticulate with very numerous small piligerous punctures.

Hair yellow, long, erect and abundant on apex of gaster, rather sparse on clypeus; shorter but abundant on rest of body and legs, very short and suberect on antennae. Funiculi pubescent.

Head one-fifth longer than broad, sides feebly convex, occipital border straight, angles rounded, very slightly projecting at the sides and in front, the projection appearing as a crest, broadly interrupted in the middle giving the border a somewhat concave appearance. Mandibles furnished with strong denticles in front, obsolete behind. Clypeus strongly convex in front and above. Frontal area large and deep. Frontal carinae as long as broad in front, twice as broad in front as behind. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus one-third longer than first and one-fourth longer than third, apical one-sixth shorter than the two preceding together. Eyes protruding, placed at posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture sharply compressed. Pronotum one-fifth broader than long, sides straight, parallel, dorsum feebly convex transversely. Mesonotum fully one-fourth broader than long, feebly convex in front, strongly convex transversely above. Epinotum strongly convex transversely. In profile pro-mesonotal suture strongly impressed, a slight drop at meso-epinotal suture. Pronotum convex on basal fourth, straight and sloping downward in front. Mesonotum feebly convex. Epinotum slightly lower than mesonotum, straight sloping downward behind, rounded into declivity, the latter straight at an obtuse angle, as long as dorsum. Node barely one-third broader than long, posterior border feebly convex, front, sides and dorsum strongly convex. In profile top portion thick and low, one-fourth longer than high, anterior and posterior faces straight, parallel, dorsum feebly convex. The ventral spine long, slender and sharp, fully three times longer than broad at base. Postpetiole one-fourth broader than long, sides and front strongly convex. First segment of gaster fully one-fourth broader than long, strongly convex behind. The constriction between the segments broad and deep. Legs long and robust.

Male.—Unknown.

Habitat.—New South Wales: Bourke (C. Barrett).

A number of specimens examined show no variation.

Rhytidoponera dixoni sp. nov.
(Pl. IV, figs. 22-23.)

Worker.—Length, 11 mm.

Chocolate-brown, gaster black, apical segments of funiculi reddish-brown.

Mandibles, scapes and tibiae finely striate longitudinally. Clypeus longitudinally rugose. Head rugose, longitudinal between frontal carinae, diverging outward behind, with a few large, very shallow punctures scattered between the rugae, interstices very finely reticulate. Pronotum transversely striate-rugose in front, irregularly punctate-rugose behind at sides, leaving middle striate only, the punctures large, shallow and scattered. Mesonotum irregularly and somewhat coarsely punctate-rugose, as on part of pronotum. Epinotum coarse punctate-rugose behind, anterior fourth finely striate-reticulate with two or three obsolete punctures. Node very finely and densely reticulate in middle, punctate-rugose elsewhere. Gaster very finely striate transversely arched, femora densely reticulate with numerous small piligerous punctures. Coxae more coarsely reticulate.

Hair yellow, long and erect on clypeus and apex of gaster, shorter but abundant on rest of body, suberect on antennae and legs.

Head barely one-fifth longer than broad, sides feebly convex, occipital border with a concave depression in the middle, angles bluntly rounded, a sharp crest forms a slight sharp lateral projection. Mandibles with numerous very sharp denticles with five or six larger along each side. Clypeus broadly convex front and above. Frontal area very shallow behind. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculi one-fifth longer than first and very slightly longer than third, apical not as long as the two preceding together. Eyes large and convex, placed just in front of posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture strongly impressed. Pronotum one-fifth broader than long, sides and dorsum feebly convex. Mesonotum and epinotum strongly convex transversely. In profile pro-mesonotal suture strongly impressed, meso-epinotal suture indicated but not impressed. Pronotum one-fifth broader than long, sides and dorsum feebly convex. Mesonotum and epinotum strongly convex transversely. In profile pro-mesonotal suture strongly impressed, meso-epinotal suture indicated but not impressed. Pronotum convex, flattened in the middle. Mesonotum strongly convex, higher than rest of thorax. Epinotum straight, sloping downward behind, declivity at an obtuse angle, straight, as long as dorsum, into which it is strongly rounded. Node one-third broader than long, feebly convex behind, front and sides strongly convex. In profile stalk almost as long as top, top portion square, anterior and posterior faces straight and vertical, dorsum straight, anterior edge sharp, posterior edge rounded. Ventral spine long, slender and parallel, abruptly sharpened, twice as long as broad at base. Postpetiole one-fourth broader than long, sides and front strongly convex. First segment of gaster one-fourth broader than long, strongly convex behind. Constriction not strongly impressed. Legs robust.

Male.—Length, 10·5-11 mm.

Blackish-brown. Mandibles and antennae reddish-brown. Wings hyaline, nervures brown.

Mandibles longitudinally striate. Head finely reticulate-rugose, coarser behind, more punctate-rugose. Thorax irregularly and coarsely reticulate-rugose, scutellum more punctate-rugose. Node finely and densely reticulate with a few transverse rugae. Postpetiole shining, very delicately reticulate. Gaster shining, the reticulations almost obsolete.

Hair yellowish-red, long and erect, abundant throughout, shorter and suberect on antennae and legs.

Head fully one-fourth longer than broad behind the eyes, occipital border strongly convex. Mandibles with numerous short sharp teeth. Frontal area not defined. Frontal carinae as long as broad in front, a distinct longitudinal ridge in middle. Scapes extend almost to middle of posterior ocellus. Second segment of funiculus fully four times longer than first, and almost one-fifth shorter than scape. Eyes occupying almost one-third of the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting slightly in front, strongly convex. Mesonotum one-seventh broader than long, broadly cone-shaped in front, a strong longitudinal groove on anterior third, mayrian furrows not indicated, parapsidal furrows feebly impressed; constriction between mesonotum and scutellum broad, shallow, the elevations at each side broader than long. Scutellum one-third broader than long, very slightly concave in front, strongly convex behind and on sides, dorsum convex both ways. Metanotum five times broader than long, strongly convex transversely. Epinotum convex transversely with a deep and wide longitudinal groove on anterior half. In profile pronotum erect, short and convex, suture sharply impressed. Mesonotum erect, strongly convex, basal third of dorsum flat. Scutellum dome-shaped, twice as long as high. Metanotum almost twice as high as long, bluntly pointed. Epinotum dropping downward behind, flat, declivity straight at an obtuse angle, rounded into dorsum. Node well defined. In profile node as long as stalk in front, rather low and dome-shaped, the ventral spine thorn-like, twice as long as broad at base. Postpetiole fully one-third broader than long, cone-shaped, sides very feebly convex. First segment of gaster almost twice as broad as long, one-third broader behind than in front, sides feebly convex. Constriction between the two segments broad and shallow. Genitalia retracted. Legs long and slender.

Habitat.—Victoria: Lake Hattah (J. Dixon); Wyperfeld National Park (J. Clark); Pomonal (J. Hill).

Numerous specimens, from all localities, have been examined. Similar to *R. mayri* Em. in general appearance but readily separated by the shape of the head and node, as well as the sculpture.

Rhytidoponera gregoryi sp. nov.

(Pl. IV, fig. 24.)

Worker.—Length, 9·5 mm.

Blackish-brown, funiculi brown.

Mandibles, scapes and tibiae very delicately and densely striate longitudinally. Clypeus longitudinally punctate-rugose. Head very finely and densely reticulate, rather coarsely reticulate-rugose behind, the rugae diverging outward to occipital angles from middle of frontal carinae, with large, shallow, scattered punctures between the rugae, some finer transverse striae on occipital border, antennal fovea densely striate transversely. Thorax and node very finely and densely striate, reticulate; transverse on anterior half of pronotum, irregularly behind, with large shallow scattered punctures, almost none on middle of dorsum. Mesonotum transversely striate, the punctures smaller and more numerous than on pronotum. Epinotum longitudinally striate on anterior fourth, transversely striate behind, large punctures confined to

posterior three-fourths and declivity. Node transversely striate with a few smaller shallow punctures. Postpetiole with very small piligerous punctures. First segment of gaster more delicately striate longitudinally, the small punctures amost obsolete. Femora very finely reticulate with numerous small piligerous punctures.

Hair yellow, rather short and erect, sparse, on clypeus and apex of gaster, extremely short on rest of body and appendages.

Head one-fifth longer than broad, sides convex at cheeks, straight behind, occipital border concave at middle, angles strongly rounded, feebly projecting forward, but without a crest. Mandibles with numerous, rather coarse, denticles. Clypeus strongly convex in front and above with a feeble, longitudinal impression behind. Frontal area triangular, deep. Frontal carinae as long as broad. Scapes extend beyond occipital border by one-third their length. First and third segments of funiculus equal in length, barely one-fourth shorter than second; apical very slightly shorter than the two preceding together. Eyes placed at the posterior third of sides. Thorax twice as long as broad, both sutures weakly impressed. Pronotum one-fifth broader than long, sides straight or very feebly concave at middle, dorsum convex. Mesonotum fully one-fourth broader than long, anterior edge feebly convex, posterior and sides strongly convex, dorsum strongly convex both ways. Epinotum strongly convex transversely. In profile sutures sharply impressed. Pronotum convex in front and behind, straight in middle, sloping downward in front. Mesonotum strongly convex. Epinotum lower than mesonotum, anterior half of dorsum straight, posterior half convex, bottom half of declivity straight. Node one-fourth broader than long, strongly convex in all directions. In profile the anterior face feebly concave, sloping forward below, posterior face vertical, rounded into, and shorter than, dorsum, anterior edge of dorsum sharp, the top flat and straight. Ventral spine long, slender and sharp, twice as long as broad at base. Postpetiole one-fourth broader than long, sides and front broadly convex. First segment of gaster barely one-fourth broader than long, strongly convex behind, constriction between the two segments sharp but not deep. Legs long and robust.

Male.—Unknown.

Habitat.—*South Australia*: Lake Killalpaninna (Prof. J. W. Gregory, 1903).

Described from two specimens.

Rhytidoponera ferruginea sp. nov.

(Pl. IV, fig. 25.)

Worker.—Length, 10-11 mm.

Bright ferrugineus throughout, in a few examples the gaster and legs a shade lighter.

Shining. Mandibles very finely striate longitudinally, almost superficially at base, with numerous small, scattered piligerous punctures. Scapes very delicately striate longitudinally. Clypeus longitudinally rugose, the rugae shining at bottom. Frontal carinae strongly striate-reticulate longitudinally, remainder of head very finely and densely striate-reticulate, diverging outward behind and encircling the antennal fovea in front, transverse at occiput, with small, shallow, very scattered punctures throughout. Thorax very finely and densely striate-reticulate transversely, coarser on epinotal declivity, somewhat irregular at base of pronotum, with small, shallow, very scattered punctures.

Node circularly striate above, transversely striate in front. Postpetiole densely striate, transversely arched in front, longitudinally arched behind. First segment of gaster very finely and densely striate, transversely arched in front, obsolete and almost smooth behind. Legs reticulate-striate, coxae more coarsely reticulate.

Hair yellow, short and erect on mandibles, front of clypeus and posterior margins of segments of gaster. Very short and sparse on scapes, slightly longer and suberect on legs.

Head fully one-sixth longer than broad, broader in front than behind, sides feebly convex, occipital border concave in middle, angles rounded, slightly projecting in front and slightly at sides. No crest. Mandibles with numerous small sharp teeth. Clypeus strongly convex above and in front, with a very short straight edge in middle of front. Frontal area large and triangular, shallow. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculus almost one-third longer than first, third slightly longer than first, apical shorter than the two preceding together. Eyes placed just in front of posterior third of sides. Thorax barely twice as long as broad, pro-mesonotal suture strongly, meso-epinotal suture weakly impressed. Pronotum one-fifth broader than long, sides almost straight, parallel, feebly convex transversely. Mesonotum almost one-third broader than long, strongly convex above, behind and on sides, weakly convex in front. Epinotum strongly convex transversely. In profile convex longitudinally with a distinct break at the sutures. Pronotum flatly convex and dropping in front. Mesonotum evenly convex, higher than epinotum, the latter feebly convex, sloping downward behind, declivity face at an obtuse angle, half as long as dorsum. Node barely twice as broad as long, oval. In profile high and thick, anterior and posterior faces straight, parallel, dorsum barely as long as posterior face, straight, the edges slightly rounded, the ventral spine three times as long as broad at base, slender and sharp. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster one-fourth broader than long, strongly convex behind. Legs long and robust.

Male.—Unknown.

Habitat.—*Queensland*: Longreach (C. Barrett).

Eight examples examined show no variation in sculpture or colour. This species comes nearest to *R. cristata* Mayr but is readily separated by the shape of the head and node, in addition to the colour.

Rhytidoponera cristata Mayr.

(Pl. IV, figs. 26-27.)

Ectatomma cristatum Mayr, Jour. Mus. Godeffroy, xii, p. 91, 1876, ☿.

Rhytidoponera (Rhytidoponera) cristata Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 12 mm.

Chocolate-brown. Mandibles, antennae and legs lighter, more reddish.

Mandibles and scapes very finely and densely striate longitudinally, with very fine scattered punctures. Clypeus punctate-rugose, the rugae longitudinal. Head very finely and densely reticulate, with large shallow punctures

sparsely scattered, and some fine longitudinal rugae between the frontal carinae, diverging outward behind. Thorax very finely and densely reticulate and with large punctures as on head, but the punctures more scattered. Mesonotum and epinotum similar but the punctures smaller. Node striate-rugose, circularly, with scattered punctures. Gaster shining, with faint indications of transversely arched reticulations. Legs very finely reticulate and punctate.

Hair yellow, long and erect on clypeus, shorter and fewer on apex of gaster, very short and adpressed on scapes and legs, none apparent on body.

Head one-fifth longer than broad, broadest in front, sides convex, occipital border feebly convex, with a slight depression at the middle, a rather prominent crest slightly projecting in front, angles rounded and slightly produced outwards laterally. Mandibles with numerous very small sharp teeth. Clypeus broadly convex above and in front. Frontal area large and shallow, triangular. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus one-fifth longer than first and slightly longer than third, apical not as long as two preceding together. Eyes large and convex placed behind the middle of sides. Thorax barely twice as long as broad, pro-mesonotal suture sharply impressed Pronotum almost as long as broad, sides parallel, dorsum convex transversely. Mesonotum and epinotum strongly convex transversely. In profile evenly convex longitudinally, rounded into declivity the latter straight at an obtuse angle. Node almost circular on top, much broader below, with a sharp longitudinal groove. In profile twice as high as long, anterior face long, straight inclined forward to base, dorsum and posterior face united in a convexity, anterior edge sharp, the ventral spine long and broad, bluntly pointed. Postpetiole one-third broader than long, strongly convex. First segment of gaster fully one-third broader than long. The constriction between the two segments sharp but not deep. Legs long and robust.

Male.—Length, 10 mm.

Head and thorax chocolate-brown. Mandibles, antennae, legs and gaster reddish.

Mandibles very finely striate longitudinally. Clypeus finely striate-rugose transversely, with some scattered shallow punctures, interstices very finely and densely reticulate. Head finely and irregularly punctate rugose, the punctures shallow and scattered, front and interstices very finely and densely reticulate. Pronotum shining, delicately reticulate, with some scattered shallow punctures. Mesonotum and scutellum very finely and irregularly striate-rugose, with numerous shallow obsolete punctures, interstices densely reticulate. Epinotum and node very finely striate transversely, with some shallow scattered punctures. Postpetiole and gaster smooth and shining.

Hair yellow, erect and long on clypeus, very long on apex of gaster, short and adpressed on antennae and legs sparse elsewhere.

Head one-fourth longer than broad, strongly convex behind eyes. Mandibles with numerous small sharp teeth. Clypeus strongly convex in front, flatly convex above, with a feeble depression in middle. Frontal area not defined. Frontal carinae as long as broad in front, almost parallel, with a strong longitudinal carina extending from clypeus to anterior ocellus. Scape as long as second segment of funiculus, five times longer than first segment. Eyes large and convex, occupying barely half the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum hardly seen from above. Mesonotum almost one-third broader than long, strongly convex in front, more broadly convex behind, mayrian and parapsidal furrows deeply

impressed, a deep longitudinal groove on anterior fourth. Scutellum as broad as long, broadest in front. Anterior edge feebly convex, posterior border, sides and dorsum strongly convex, a fine longitudinal groove on posterior half of dorsum. Constriction between mesonotum and scutellum narrow and shallow. Metanotum fully three times broader than long, strongly convex. Epinotum strongly convex transversely. In profile pro-mesonotal suture deeply impressed. Pronotum erect, convex. Mesonotum strongly convex in front and above. Scutellum convex above, three times longer than high. Metanotum slightly longer than high, convex above. Epinotum strongly convex from base to foot of declivity. Node not defined from above, slightly broader behind than in front. In profile very feebly convex above, almost parallel, the ventral spine short and thorn-like. Postpetiole slightly broader than long, sides strongly convex. First segment of gaster almost one-third broader than long, slightly broadest behind. Deeply and broadly constricted between the two segments. Genitalia retracted. Legs long and slender.

Habitat.—Queensland: Brisbane (H. Hacker); Westwood (A. N. Burns); Rockhampton (H. J. Carter); Toowoomba (W. B. Barnard); Stanthorpe (E. E. Sutton).

Rhytidoponera cristata Mayr var. *punctiventris* Forel.

(Pl. IV, figs. 28-29.)

Ectatomma (Rhytidoponera) cristata Mayr var. *punctiventris* Forel, Ann. Soc. Ent. Belg., liv, p. 56, 1900, ☿.

Rhytidoponera (Rhytidoponera) cristata Mayr var. *punctiventris* Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 11 mm.

Black. Mandibles, antennae and legs brown.

Mandibles, scapes and tibiae very finely and densely striate longitudinally. Clypeus coarsely punctate-rugose, rugae longitudinal. Head very finely and densely reticulate longitudinally striate-rugose between frontal carinae, diverging outward behind, with numerous large, shallow punctures. Thorax and node very finely reticulate as on head. Pronotum with a few very scattered, very shallow, large punctures, almost obsolete. Punctures on mesonotum and epinotum smaller and more numerous, declivity of epinotum coarsely rugose transversely. Node circularly striate-rugose, anterior face reticulate. Gaster very finely and densely reticulate-punctate, with some larger, scattered punctures. Femora densely reticulate, with numerous small piligerous punctures.

Hair yellow, long and erect on front of clypeus and apex of gaster, very short and erect elsewhere on body, much shorter and suberect on antennae and legs. No pubescence.

Head one-fifth longer than broad, sides straight, angles bluntly rounded; a feeble crest projects slightly at the angles, concave at middle of border. Mandibles with numerous rather large denticles. Clypeus broadly convex above and in front. Frontal area triangular, large and deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculus barely one-third longer than first, and one-eighth longer than third, apical as long as the two preceding together. Eyes large and convex, placed just in front of posterior third.

Thorax twice as long as broad, pro-mesonotal suture strongly impressed. Pronotum slightly broader than long, sides feebly convex, almost straight, dorsum feebly convex transversely. Mesonotum and epinotum strongly convex transversely. In profile convex longitudinally, a feeble excision at pro-mesonotal suture and a feeble depression at meso-epinotal junction. Pronotum sloping downward in front, rather flatly convex. Mesonotum evenly convex. Epinotum convex from base to bottom of declivity. Node fully one and one-half times broader than long, strongly convex in all directions. In profile twice as high as long, top portion very slightly longer than high, parallel, anterior and posterior faces straight and vertical, dorsum straight, as long as posterior face, anterior edge sharp, posterior edge rounded; the ventral spine twice as long as broad at base, slender and sharp. Postpetiole almost one-third broader than long, sides feebly convex. First segment of gaster one-third broader than long, strongly convex behind. The constriction between the segments deep and narrow. Legs long and robust.

Male.—Length, 11 mm.

Head and thorax chocolate-brown. Node and gaster brown. Mandibles, antennae and legs reddish-brown. Wings yellow, nervures brown.

Mandibles very finely and densely striate longitudinally. Head very finely and densely reticulate, with very few large, shallow scattered punctures. Pronotum reticulate and with large punctures as on head. Mesonotum and scutellum coarsely punctate-rugose, the punctures deep and wide, densely reticulate in interstices. Epinotum finely and densely reticulate, striate-rugose transversely, with some large shallow scattered punctures. Node and gaster very finely reticulate-punctate.

Hair yellow, long and erect on head and apex of gaster, short and sparse elsewhere.

Head fully one-fifth longer than broad, strongly convex behind eyes. Mandibles with numerous small sharp teeth. Clypeus broadly convex in front, rather flatly convex above with a distinct, but small, longitudinal carina. Frontal area large and triangular, shallow. Frontal carinae as long as broad in front, slightly broader behind, a feeble longitudinal carina in middle. Second segment of funiculus very slightly longer than scape, and four times longer than first. Eyes occupy fully one-third of sides. Ocelli large and convex. Thorax twice as long as broad. Pronotum projecting slightly at sides and front of mesonotum, strongly convex. Mesonotum as long as broad, cone-shaped in front, feebly convex behind, mayrian furrows very feebly indicated, parapsidal furrows strongly impressed, central furrow on anterior third strongly impressed. Scutellum one-third broader than long, feebly convex in front, strongly convex behind and on sides, dorsum convex both ways. Metanotum five times broader than long, strongly convex. Epinotum strongly convex transversely. In profile sutures sharply but not deeply impressed. Pronotum straight, or very feebly convex, sloping downward and forward at an obtuse angle. Mesonotum strongly convex in front, straight on posterior third. Scutellum dome-shaped, twice as long as high. Metanotum higher than long, bluntly pointed. Epinotum strongly convex from base to bottom of declivity. Node very slightly broadest behind, hardly defined. In profile low and broadly convex, the ventral spine slender and sharp, twice as long as broad at base. Postpetiole fully one-third broader than long, cone-shaped, sides feebly convex. First segment of gaster one-fourth broader than long, sides convex, slightly broader behind than in front. Genitalia retracted. Legs long and slender.

Habitat.—New South Wales: Sydney (W. W. Froggatt).

Rhytidoponera yorkensis Forel.

(Pl. IV, fig. 30.)

Rhytidoponera cristata Mayr r. *yorkensis* Forel, Arkiv. f. Zool., 9, 16, p. 12, 1915, ☿.

Worker.—Length, 9-9·5 mm.

Brownish-red, inner edges of mandibles and legs lighter red.

Mandibles and scapes very finely and densely striate longitudinally. Head very finely and densely striate-reticulate, with some stronger longitudinal striae between frontal carinae diverging outward behind, with numerous scattered shallow punctures, reticulate at bottom, the punctures larger and coarser on clypeus. Thorax and node very finely and densely reticulate, with some large, very shallow scattered punctures. Both segments of gaster very densely and delicately striate transversely. Legs very finely reticulate-striate, transverse on femora, longitudinal on tibiae.

Hair yellow, long and erect on front of clypeus and apical segments of gaster, none on body, very short and suberect on mandibles, at apex of scapes, on funiculi and legs. Funiculi pubescent.

Head almost one-fifth longer than broad, sides feebly convex, almost straight, occipital border convex, strongly indented at the middle, angles rounded, with indications of a slight crest in front. Mandibles with numerous very small sharp teeth. Clypeus strongly convex above and in front. Frontal area large and deep with a large deep puncture at each side near base. Frontal carinae longer than broad in front, one-third broader in front than behind, the lobes somewhat raised. Scapes extend beyond occipital border by fully one-third their length. Second and third segments of funiculus equal length, slightly longer than first, apical as long as the two preceding together. Eyes placed at the posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture sharply impressed. Pronotum as long as broad, sides parallel, dorsum convex. Mesonotum and epinotum strongly convex transversely, mesonotum bluntly pointed in front. In profile pronotum sloping downward in front, convex but rather flattened in the middle. Mesonotum feebly convex. Epinotum slightly lower than mesonotum, dorsum short, rounded into declivity, the latter straight, longer than dorsum. Node barely twice as broad as long, strongly convex in front, feebly convex behind, dorsum convex both ways. In profile almost twice as high as long, longer at base than above, anterior face concave sloping down and forward, posterior straight inclined slightly forward above, rounded into dorsum, the latter flat, as long as posterior face, anterior edge sharp, the ventral spine short and blunt. Postpetiole one-seventh broader than long, cone-shaped, sides convex. First segment of gaster almost one-fourth broader than long, strongly convex behind, the constriction between the two segments narrow and deep. Legs long and robust.

Male.—Unknown.

Habitat.—Northern Queensland: Cooktown, Endeavour River (C. Olive).

Redescribed from three examples. The differences are too great for this form to be regarded as a subspecies of *R. cristata*. There is a slight resemblance in the shape of the head.

Rhytidoponera barnardi sp. nov.

(Pl. IV, fig. 31.)

Worker.—Length, 8-8·5 mm.

Bright ferrugineus throughout.

Mandibles, scapes and tibiae very densely and delicately striate longitudinally. Head coarsely punctate-rugose, the punctures large and shining at bottom, three or four longitudinal rugae between frontal carinae. Thorax very finely and densely reticulate, coarsely punctured with large, rather deep, punctures shining at bottom, coarsely rugose transversely on epinotal declivity. Node finely and densely striate-reticulate above, transversely striate on anterior face. Gaster very finely and densely striate transversely, with numerous very small piligerous punctures. Femora finely striate-reticulate transversely with rather large piligerous punctures.

Hair yellow, very long and erect, but not numerous, on clypeus and apical segments of gaster, very short and sparse on body, suberect on antennae and legs and more numerous than on body. Funiculi pubescent.

Head one-fourth longer than broad, sides feebly convex, occipital border convex with a slight depression in the middle, angles rounded, a sharp crest follows the contour of border and angles. Mandibles strongly dentate in front, the teeth small behind. Clypeus broadly convex above and in front. Frontal area large and triangular, deep in front, shallow behind. Frontal carinae as long as broad in front, twice as broad in front as behind. Scapes extend beyond occipital border by almost half their length. Second segment of funiculus one-third longer than first and one-fourth longer than third, apical barely as long as the two preceding together. Eyes placed just behind the middle of sides. Thorax fully twice as long as broad, pro-mesonotal suture strongly impressed, meso-epinotal suture weakly impressed. Pronotum as long as broad, sides parallel, slightly concave in middle, dorsum feebly convex transversely. Mesonotum longer than broad, strongly convex in all directions. Epinotum strongly convex transversely. In profile the sutures strongly impressed. Pronotum sloping downward in front, flattened, but rounded downward at each end. Mesonotum evenly convex, abruptly truncate behind and higher than epinotum. Anterior two-thirds of epinotum convex, posterior third straight dropping downward behind, feebly rounded into declivity, the latter straight, one-third shorter than dorsum. Node one-fourth broader than long, strongly convex in all directions, anterior edge sharp. In profile one-third higher than long, anterior face straight and vertical, posterior face straight inclined forward above, dorsum slightly longer than posterior face, straight, sloping downward behind, both edges short, the ventral spine short, slender and sharp. Postpetiole one-fifth broader than long, cone-shaped, sides feebly convex. First segment of gaster one-fourth broader than long, strongly convex behind. The constriction between the two segments broad and shallow. Legs long and robust.

Male.—Unknown.

Habitat.—*Northern Queensland*: Cape York (W. B. Barnard, 1927).

Rhytidoponera carinata sp. nov.

(Pl. IV, fig. 32.)

Worker.—Length, 7 mm.

Bright ferrugineus throughout, scapes and occipital crest darker.

Mandibles and scapes very finely and densely striate longitudinally. Clypeus

with seven longitudinal striae, the central one appearing as a strong carina, shining between striae. Head coarsely and deeply punctate-rugose, the rugae longitudinal between frontal carinae diverging slightly outward behind, interstices densely and finely reticulate. Thorax coarsely and irregularly rugose with large, very shallow, scattered punctures, widely spaced, between the rugae, interstices densely reticulate. Node punctate-rugose, much finer than on thorax. Gaster very densely reticulate-striate.

Hair yellow, long and erect on front of clypeus and apex of segments of gaster, short and sparse on rest of body, very short and suberect on scapes, shorter and adpressed on legs.

Head one-sixth longer than broad, very slightly broader in front than behind, sides feebly convex, occipital border convex with a slight concave depression in the middle, angles broadly rounded, a strong crest follows the contour of the border from eye to eye. Mandibles with numerous very fine denticles. Clypeus broadly convex in front and above. Frontal area large and deep. Frontal carinae as long as broad. Scapes extend beyond occipital border by fully one-third their length. Second and third segments of funiculus equal length, one-sixth longer than first, apical one-fifth shorter than the two preceding together. Eyes placed at posterior third of sides. Thorax twice as broad as long, suture sharply impressed. Pronotum as long as broad, sides and dorsum feebly convex. Meso-epinotum strongly convex transversely. In profile convex longitudinally, pro-mesonotal suture feebly impressed, a distinct drop at meso-epinotal junction. Pronotum convex, slightly flattened at basal third. Mesonotum feebly convex, with a very short truncate edge behind. Epinotum strongly convex from base to bottom of declivity. Node one-fourth broader than long, oval, dorsum convex both ways. In profile anterior face straight, inclined slightly forward above; dorsum straight or very feebly convex, as long as posterior face, both edges blunt, but not rounded. Ventral spine long, slender, parallel, three times longer than broad. Postpetiole barely one-third longer than broad, cone-shaped, sides very feebly convex. First segment of gaster one-third broader than long, strongly convex behind. Constriction between segments broad but very shallow. Legs robust.

Male.—Unknown.

Habitat.—*Northern Territory*: Borroloola (G. F. Hill, 1911).

In general appearance similar to *R. aurata* Rog., but readily separated by the form of the head and node.

Rhytidoponera aciculata Smith.

(Pl. V, fig. 33; Text fig. 3.)

Ectatomma aciculata Smith, Cat. Hymn. Brit. Mus., vi, p. 104, 1858, ☿.

Ectatomma aciculata Smith; Mayr, Jour. Mus. Godeffroy, xii, p. 91, 1876, ☿.

Ectatomma (Rhytidoponera) punctatum Smith subsp. *aciculatum* Smith; Forel, Fauna Sudwest Austrl., i, p. 268, 1907, ☿.

Rhytidoponera (Rhytidoponera) punctata s.sp. *aciculata* Smith, Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Ectatomma (Rhytidoponera) cristata Emery s.sp. *caro* Forel, Rev. Suisse Zool., xviii, p. 11, 1910, ☿.

Worker.—Length, 10 mm.

Black. Mandibles, antennae, legs and gaster brownish.

Mandibles and antennae very finely striate longitudinally, with small, shallow, scattered punctures. Head strongly punctate-rugose, longitudinal in front, diverging strongly outward behind. The ground surface densely and finely reticulate. Thorax densely and finely transversely reticulate-striate, with large, shallow, scattered punctures. Node coarsely punctate-reticulate. First segment of gaster with very fine reticulate-striae transversely arched, second segment more reticulate than striate, more or less transversely.

Hair bristle-like, very short and erect, sparse throughout, shorter but more abundant on antennae and legs.

Head one-sixth longer than broad, much broader in front than behind. Sides straight to the eyes, narrowing rapidly behind eyes, occipital border straight, the angles bluntly rounded and feebly projecting forward. Mandibles with four or five short blunt teeth and five or six very small between them. Clypeus convex, bluntly pointed in front. Frontal carinae flattened above, slightly longer than broad in front. Scapes extend beyond the occipital border by barely half their length. Second segment of funiculus one-third longer than first, third slightly shorter than second, apical as long as the two preceding together. Eyes placed behind the middle of sides. Thorax twice as long as broad; pronotum one-third broader than long, strongly convex; pro-mesonotal suture sharply defined but not deep; mesonotum broader than long, convex in all directions; epinotum slightly broader than long. In profile the thorax convex longitudinally with a slight depression at anterior of epinotum. Node oval, three times broader than long, convex transversely. In profile three times as high as long on top, the anterior face straight or feebly concave, dorsum flat, rounded into posterior face, anterior border sharp; the ventral spine fully twice as long as broad, sharply pointed. Postpetiole one-sixth broader than long, bell-shaped. First segment of gaster one-fourth broader than long. The constriction between the segments strongly but not deeply impressed. Legs robust.

Male.—Length, 10·5 mm. (Text fig. 3).

Head, thorax and node blackish-brown. Mandibles, antennae, legs and gaster brown.

Mandibles finely and densely striate longitudinally. Clypeus irregularly rugose, very finely and densely reticulate between the rugae. Head more finely and irregularly rugose, with some large shallow punctures between the rugae, cheeks between eyes and frontal carinae densely punctate. Pronotum finely striate transversely in front, with large, shallow, scattered punctures between the striae. Mesonotum irregularly rugose with traces of fine longitudinal striae, very finely and densely punctate. Scutellum coarsely rugose. Epinotum and node finely striate-rugose transversely. Postpetiole and gaster very finely and densely reticulate.

Hair brownish, short and erect, abundant throughout. Wings hyaline, nervures brown.

Head strongly convex behind the eyes. Mandibles with numerous small sharp teeth. Clypeus broadly convex in front and above. Frontal area shallow, broader than long, triangular. Frontal carinae as long as broad in front. Scapes as long as second segment of funiculus, fully three times longer than second segment. Eyes occupy fully one-third of the sides of head. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting and broadly rounded in front. Mesonotum broader than long, convex in all directions. Parapsidal furrows distinct but feebly impressed, longitudinal groove feebly impressed in front and behind, obsolete in middle. Scutellum one-third broader than long, much broader in front than behind.

Metanotum four times broader than long, convex in all directions. Epinotum feebly convex transversely. In profile pronotum convex, inclined backwards. Mesonotum erect, strongly convex. Scutellum longer than high, dome shaped. Metanotum as long as high. Epinotum strongly convex from base to apex. Node almost parallel, broadest behind. In profile convex above, sloping

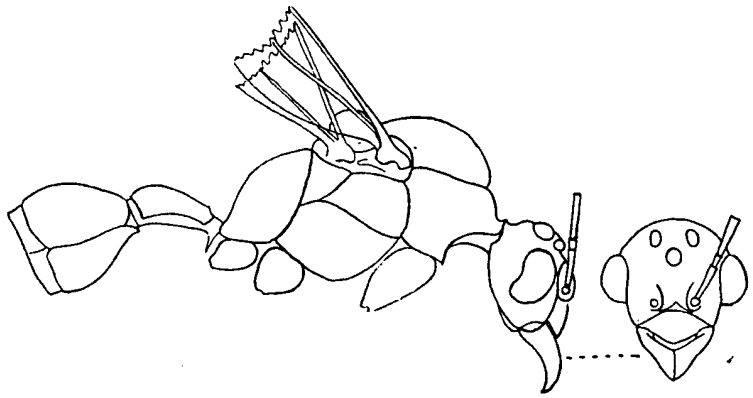


FIG. 3. RHYTIDOPONERA ACICULATA Smith.
Male.

gradually in front, almost parallel; the ventral spine very long, slender and sharp. Postpetiole broader than long, cone-shaped, sides feebly convex. First segment of gaster one-third broader than long, broadest behind, sides convex. Legs long and slender. Genitalia retracted.

Habitat.—New South Wales: Hunter River (type locality).

Rhytidoponera punctata Smith.

(Pl. V, fig. 34.)

Ectatomma punctata Smith, Cat. Hymn. Brit Mus., vi, p. 104, 1858; Mayr, Jour. Mus. Godeffroy, xii, p. 91, 1876, ☿.

Ectatomma punctata Forel, Ann. Soc. Ent. Belg., xxxviii, p. 459, 1893 (non Smith), ☿.

Ectatomma (Rhytidoponera) punctata Forel, Fauna Sudwest Austral., i, p. 268, 1907, ☿.

Rhytidoponera (Rhytidoponera) punctata Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 10 mm.

Blackish-brown, mandibles, antennae and legs brown.

Mandibles finely striate longitudinally. Scapes and legs microscopically reticulate. Head, thorax and node with scattered large shallow punctures, shining at bottom; front of head with some longitudinal rugae diverging outward behind; the longitudinal groove on top of node transversely striate. Gaster very densely, microscopically punctate; the head, thorax and node with a similar ground scultpure between the large punctures.

Hair yellow, long, slender and erect on front of clypeus, short and sparse at apex of gaster, sparse, short and suberect on antennae and legs, not apparent on head and body. Pubescence apparent only on funiculi and gaster, very sparse, fine and adpressed.

Head slightly longer than broad, sides feebly convex, occipital border straight, angles strongly rounded, with a feeble crest. Mandibles with numerous very small sharp teeth. Clypeus strongly convex above and in front. Frontal carinae as long as broad in front, twice as broad in front as behind. Frontal area shallow. Scapes extend beyond occipital border by almost one-third their length. First and third segments of funiculus equal length, very slightly shorter than second, apical barely as long as the two preceding together. Eyes slightly protruding, placed at the posterior third of sides. Thorax fully twice as long as broad. Pronotum broader than long, the sides almost straight and parallel, pro-mesonotal suture strongly impressed. Mesonotum as long as broad, broader in front than behind, strongly convex above. Meso-epinotal suture well defined. Dorsum of epinotum short, rounded into declivity. In profile strongly indented at sutures, dorsum of pronotum flat, sloping downward in front, anterior and posterior edges rounded and dropping abruptly. Mesonotum evenly convex. Dorsum and declivity of epinotum descending in an even convexity. Node one-third broader than long, almost oval, but broader behind than in front, a strong longitudinal groove on dorsum. In profile much higher than long, anterior and posterior faces vertical, parallel; dorsum flat, sloping slightly downward behind, posterior edge rounded, anterior edge sharp, the ventral spine thorn-like, very sharp. Postpetiole one-fourth broader than long, first segment of gaster slightly broader than long, larger than postpetiole. The constriction between the two segments deep but not wide. Legs robust.

Habitat.—South Australia: Port Lincoln (type locality) (F. E. Wilson, 1928).

This species appears to be confined to the Port Lincoln district. The specimens captured by Mr. Wilson have been compared with an example from Smith's type material, kindly loaned by the authorities of the British Museum; they agree in every particular.

Rhytidoponera rufonigra sp. nov.
(Pl. V, figs. 35-36.)

Worker.—Length, 9-9·5 mm.

Dark chocolate-brown, mandibles, antennae and legs reddish-brown.

Mandibles and scapes finely and densely striate longitudinally. Clypeus coarsely punctate-rugose, the rugae longitudinal. Head coarsely punctate, the punctures large and deep, each separated from the other by about its width, some fine longitudinal rugae between frontal carinae, diverging outward behind but not extending beyond the eyes; interstices very finely and densely reticulate, bottom of punctures also reticulate. Thorax, node and gaster very finely and densely reticulate as on head. Pronotum, mesonotum and epinotum with very large, shallow punctures, reticulate at bottom, just as numerous as on head, epinotal declivity coarsely rugose transversely. Punctures on node smaller than on thorax, confined to the sides and edges leaving a shallow groove in middle reticulate only. Gaster with numerous small, very shallow punctures in addition to the dense reticulation. Legs very finely and densely reticulate, with numerous small piligerous punctures. Coxae densely reticulate, anterior coxae with some large punctures.

Hair yellow, not abundant, long and erect on front of clypeus and apex of gaster, short and sparse on head and body, very short and suberect on scapes and legs. Funiculi pubescent.

Head one-sixth longer than broad, sides evenly convex, occipital border very feebly convex, angles broadly rounded, a small but sharp crest forms a straight line from angle to angle across the border. Mandibles with numerous small sharp teeth. Clypeus broadly convex above, convex and bluntly produced in front. Frontal area broad and deep in front. Frontal carinae as long as broad in front, contracting suddenly behind. Scapes extend beyond occipital border by fully one-third their length. Second segment of funiculus one-eighth longer than first and very slightly longer than the two preceding together. Eyes large and convex, placed at posterior third of sides. Thorax fully twice as long as broad, sutures sharply impressed. Pronotum as long as broad, sides feebly convex, dorsum strongly convex transversely. In profile convex longitudinally, the sutures sharply impressed. Pronotum strongly convex on basal fourth, straight or very feebly convex in front, sloping downward. Mesonotum rather flatly convex, slightly higher than epinotum, the latter convex from base to bottom of declivity. Node very slightly broader than long, almost circular, flat on top. In profile twice as high as long, anterior face straight and vertical, posterior face slightly convex, inclined forward and rounded on to dorsum, the latter straight, longer than posterior face, anterior edge short, the ventral spine long, slender and sharp, three times as long as broad at base. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster one-sixth broader than long, strongly convex behind. The constriction between the two segments sharp and deep. Legs long and robust.

Male.—Length, 9·5-10 mm.

Mandibles, front of face to anterior ocellus, antennae and legs reddish, thorax and node brown, gaster chocolate-brown. Wings with a yellowish tinge, nervures brown.

Mandibles very delicately striate longitudinally. Head very finely and densely reticulate, with scattered large shallow punctures, obsolete on clypeus. Pronotum, mesonotum and scutellum similar but the punctures deeper and shining at bottom. Epinotum very sparsely punctate. Node and gaster finely and densely reticulate-punctate.

Hair yellow, very sparse, apparent only on head and apical segments of gaster, more numerous on antennae and legs but very short and adpressed.

Head very slightly longer than broad, strongly convex behind. Mandibles with numerous small denticles. Clypeus broadly convex in front and above. Frontal area indistinct. Frontal carinae as long as broad in front, with a strong central longitudinal carina extending to anterior ocellus. Scapes one-eighth shorter than second segment of funiculus, first segment as long as broad. Eyes large, occupying half the sides. Ocelli large and convex. Thorax twice as long as broad. Pronotum projecting slightly in front. Mesonotum as long as broad, broadly cone-shaped in front, mayrian furrows strongly impressed in front, becoming obsolete behind. Parapsidal furrows distinct but feebly impressed, a distinct but feebly longitudinal groove on the anterior fourth. Scutellum fully one-third broader than long, anterior border straight, dome-shaped behind, a wide shallow longitudinal groove above. Metanotum five times broader than long, convex all ways. Epinotum convex transversely. In profile pro-mesonotal suture strongly impressed. Pronotum erect, sloping slightly backward above. Scutellum barely twice as long as high, dome-shaped. Metanotum longer than high, bluntly pointed above. Epinotum

convex, sloping downward behind, declivity face one-third shorter than dorsum. Node convex above and on sides, almost circular. In profile convex above, sloping downward gradually in front. Ventral spine thick, sharp pointed, twice as long as broad at base. Postpetiole one-third broader than long, sides strongly convex. First segment of gaster one-third broader than long, broader behind than in front, sides convex. Strongly constricted between the two segments. Genitalia retracted. Legs long and slender.

Habitat.—Western Australia: Perth; Mundaring; Armadale (J. Clark).

This species, widely distributed in the Perth district, has been mistaken for *R. punctata* Sm. which it closely resembles. *R. punctata* has been found only in South Australia and differs in many ways.

Rhytidoponera flindersi sp. nov.
(Pl. V, fig. 37.)

Worker.—Length, 10 mm.

Chocolate-brown. Mandibles, funiculi and legs reddish.

Mandibles, scapes and tibiae very delicately and densely striate longitudinally. Head, thorax and node finely and densely reticulate, with large, shallow, very scattered punctures, most of the punctures more or less obsolete. Pronotum very sparsely punctate, the punctures large and shallow. Punctures a little more numerous on mesonotum, on epinotum the punctures are slightly larger and similarly scattered. Node with a few obsolete large punctures on the edges. Gaster very finely and densely reticulate-punctate. Femora very delicately reticulate.

Hair yellow, very sparse, apparent only on front of clypeus and apex of gaster.

Head one-sixth longer than broad, sides feebly convex, occipital border straight, angles broadly rounded. Mandibles very feebly and irregularly denticulate. Clypeus strongly convex above and in front. Frontal area triangular, deep. Frontal carinae as long as broad. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal in length, one-seventh shorter than second, apical one-tenth shorter than the two preceding together. Eyes placed at posterior third of sides. Thorax fully twice as long as broad, sutures strongly impressed. Pronotum barely one-fourth broader than long, sides straight, dorsum convex transversely. Mesonotum one-third broader than long, strongly convex behind and on sides, weakly convex and bluntly pointed in front, dorsum strongly convex both ways. Epinotum strongly convex transversely. In profile sutures deeply impressed. Pronotum strongly convex, flattened in the middle and sloping downward in front. Mesonotum strongly convex. Epinotum much lower than mesonotum, dorsum and declivity straight, angle rounded, declivity barely one-third longer than dorsum. Node as long as broad, almost circular, dorsum flat. In profile top portion one-fifth longer than high, anterior and posterior faces straight, parallel, dorsum straight, posterior edge rounded. Ventral spine short, thorn-like. Postpetiole one-third broader than long, strongly convex in front. First segment of gaster one-seventh broader than long, strongly convex on sides and behind. Constriction sharp and deep. Legs robust.

Male.—Unknown.

Habitat.—South Australia: Flinders Island (F. Wood Jones).

In size and sculpture this species resembles *R. punctata* from Port Lincoln. It is, however, readily separated by the form of the thorax and node.

Rhytidoponera levior Crawley

(Pl. V, figs. 38-39.)

Rhytidoponera punctata Smith var. *levior* Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 581, 1925, ☿.

Worker.—Length, 10 mm.

Dark chocolate-brown, mandibles, antennae and legs red.

Mandibles and scapes very finely and densely striate longitudinally. Head, thorax, node and gaster very finely and densely punctate. In addition to the fine ground sculpture the head is sparsely covered with moderately large, very shallow punctures, deeper and more numerous on the clypeus, with no traces of rugae or striae. Thorax and node also with very shallow, small, scattered punctures, smaller and more sparse than on head. Legs with numerous small piligerous punctures.

Hair yellow, very short and sparse throughout except on clypeus and apex of gaster. Pubescence not apparent.

Head one-seventh longer than broad, slightly broader in front than behind, sides evenly convex, occipital border short, rounded into sides, strongly convex to eyes; no traces of a crest at angles. Mandibles with numerous small sharp denticles. Clypeus broadly convex above, convex and bluntly pointed in front. Frontal carinae as long as broad in front. Frontal area broad and deep. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal length, second slightly longer, apical as long as the two preceding together. Eyes large and convex, protruding slightly, their centre slightly beyond the posterior third. Thorax fully twice as long as broad, sutures sharply defined. Pronotum one-third broader than long, rather flat above, sides almost parallel, feebly compressed at middle. Mesonotum one-fourth broader than long, posterior border strongly convex, anterior border convex and bluntly pointed. Epinotum merged into declivity. In profile the pro-mesonotal suture sharply impressed. Pronotum flat, abruptly rounded downward in front and behind. Mesonotum convex, raised abruptly above level of epinotum, the latter sloping downward, straight or feebly convex, to inferior third of declivity, then dropping more abruptly. Node barely one-third broader than long, straight or feebly convex behind, sides and anterior face united almost hemispherical. In profile one-third higher than long, anterior face vertical, posterior face straight, inclined forward at top; dorsum straight, sloping downward behind, anterior edge sharp, posterior edge rounded, the ventral spine very short, slender and sharp. Postpetiole one-fourth broader than long, bell shaped. First segment of gaster one-fourth broader than long, strongly convex. The constriction between the two segments deep. Legs robust.

Male.—Length, 9·5-10 mm.

Brown. Mandibles, front of face to anterior ocellus, antennae and legs red. Wings hyaline, nervures brown.

Mandibles very delicately striate longitudinally. Head, thorax, node and

gaster very finely and densely punctate-reticulate, with some large shallow scattered punctures. Antennae and legs very delicately reticulate.

Hair yellow, long and erect on clypeus and apical margin of gaster segments. Very short and adpressed on antennae and legs.

Head one-eighth longer than broad, strongly convex behind. Mandibles with numerous sharp denticles. Clypeus broadly convex in front and above. Frontal carinae as long as broad in front, with a median distinct longitudinal ridge extending from clypeus to anterior ocellus. Second segment of funiculus almost two-thirds longer than scape, first segment as long as broad. Eyes large and convex, occupying fully one-third of sides. Ocelli large and convex, anterior margin of posterior ocelli level with posterior margin of eyes. Thorax barely twice as long as broad. Pronotum not visible from above. Mesonotum almost one-third broader than long, broadly cone-shaped in front, feebly convex behind, mayrian furrows sharply and deeply impressed, parapsidal furrows sharply impressed, a strong longitudinal groove on the anterior fourth. Scutellum almost one-fourth broader than long, convex all ways. Epinotum flat in front, convex transversely behind. In profile promesonotal suture deeply impressed, pronotum erect and convex. Mesonotum erect and strongly convex in front. Scutellum fully twice as long as high, dome-shaped. Metanotum bluntly pointed. Epinotum convex on top, rounded into declivity without traces of a boundary, declivity straight at an acute angle. Node not distinct from above, wider behind than in front. In profile very feebly convex, and very little higher than stalk behind, sloping gradually downward in front, the ventral spine short and tubercle-like. Postpetiole one-sixth broader than long, cone-shaped in front, sides feebly convex. First segment of gaster fully one-fourth broader than long, one-seventh broader behind than in front, sides convex, the constriction between the two segments narrow and deep. Genitalia retracted. Legs long and slender.

Habitat.—Western Australia: Rottnest Island (W. H. Mathews, L. Glauert).

Rhytidoponera micans sp. nov.

(Pl. V, figs. 40-41.)

Worker.—Length, 8 mm.

Dark chocolate-brown, almost blackish-brown, edges of mandibles, apical segments of funiculi and the tarsi reddish.

Mandibles, scapes and tibiae very densely and delicately striate longitudinally. Clypeus finely punctate-rugose, the rugae longitudinal, the punctures shining at bottom. Head very finely and densely striate, longitudinally between frontal carinae, diverging outward behind the eyes, some transverse striae on occiput, antennal fovae and cheeks very finely and very densely reticulate, without striae, the same dense reticulation extends all over the head between the striae, some small shallow scattered punctures over head more abundant on cheeks. Sculpture of thorax similar to head, the striae circular on pronotum, transverse on neck, transverse on mesonotum and epinotum, much coarser on declivity, the larger punctures very sparse and shallow. Node irregularly striate-reticulate with a few shallow punctures. Both segments of gaster very delicately striate transversely with numerous very small piligerous punctures. Femora transversely striate-reticulate.

Hair yellow, very sparse, confined to a few on front of clypeus and apex of gaster with some shorter on funiculus and underside of femora and tibiae. Pubescence very fine and adpressed, not abundant.

Head one-sixth longer than broad, sides straight and parallel to eyes, strongly convex behind the eyes, occipital border short and straight. Mandibles edentate, on some examples the cutting edge feebly denticulate. Clypeus strongly pointed in front. Frontal area deep in front, very shallow behind. Frontal carinae as long as broad in front, the lobes narrow and slightly raised. Scapes extend beyond occipital border by almost half their length. Second and third segments of funiculus equal in length, first one-sixth shorter. apical slightly shorter than the two preceding together. Eyes large and convex, slightly protruding, placed at posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture strongly impressed. Pronotum as long as broad, sides straight on basal half, convex in front, dorsum convex transversely. Mesonotum and epinotum convex transversely. In profile convex longitudinally, with distinct depressions at the sutures. Pronotum higher than mesonotum, weakly convex on top, strongly convex and dropping in front. Mesonotum flatly convex. Epinotum strongly convex from base to foot of declivity. Node barely twice as broad as long, oval, dorsum convex all ways. In profile twice as high as long, top part cubic, inclined forward, parallel, anterior face convex above, concave below, posterior face feebly convex, dorsum flat, sloping downward behind, edges sharply rounded; the ventral spine four times as long as broad at base, very slender and sharp. Postpetiole almost one-third broader than long, strongly convex. First segment of gaster one-third broader than long, strongly convex behind. The constriction between the segments strong and deep. Legs long, rather slender.

Male.—Length, 8·5-9 mm.

Chocolate-brown. Mandibles, antennae and legs reddish. Wings hyaline with a yellowish tinge, nervures brown.

Mandibles finely striate longitudinally. Head finely and densely reticulate-punctate irregularly, more coarsely punctate between the ocelli. Thorax densely and irregularly reticulate with some large, shallow, very scattered punctures, base of epinotum striate-reticulate longitudinally. Node, gaster and legs very densely and delicately reticulate, with numerous small piligerous punctures.

Hair yellow, short, erect and rather sparse throughout, except on clypeus and apex of gaster.

Head very slightly longer than broad behind eyes, strongly convex behind eyes. Mandibles with numerous sharp denticles. Clypeus broadly convex in front and above. Frontal area small, feebly defined. Frontal carinae as long as broad in front, broader behind than in front. Scapes extend to anterior margin of posterior ocellus. Second segment of funiculus four times longer than first, apical one-third longer than the preceding. Eyes large and convex, occupying half the sides. Ocelli large and convex. Thorax twice as long as broad. Pronotum appears as a very narrow margin on front and sides of mesonotum, strongly convex. Mesonotum as long as broad, broadly cone-shaped in front, posterior edge straight, dorsum convex all ways, mayrian furrows feebly indicated. Parapsidal furrows sharply but not deeply impressed. Scutellum one-third broader than long, anterior edge feebly convex, sides and posterior border strongly convex, a broad shallow longitudinal groove on top, constriction between pronotum and mesonotum deep and wide with a raised circular disc at each side. Metanotum erect, four times broader than long, strongly convex all ways. Epinotum strongly convex

transversely, with a faint longitudinal groove in middle. In profile pronotum short and erect, convex in front. Mesonotum erect, strongly convex in front and on dorsum, posterior fourth flattened, sutures sharply defined. Scutellum erect, strongly convex above, longer than high. Metanotum erect, as high as long, convex above. Epinotum sloping downward behind at an obtuse angle, slightly convex in front, straight behind, declivity short and straight at an acute angle. Node not defined, very slightly broader than stalk in front, feebly convex, very slightly flattened on top. In profile low and convex, slightly higher behind than in front. Ventral spine very slender and sharp. fully twice as long as broad at base. Postpetiole fully one-third broader than long, sides and front strongly convex. First segment one and three-fourths times broader than long, broader behind than in front, sides convex. The constriction between the two segments sharp but not deep. Genitalia retracted. Legs long and slender.

Habitat.—Western Australia: Eradu; Mullewa (J. Clark).

In sculpture this species comes near *R. punctata* Sm., but is readily separated by the size and form.

Rhytidoponera flavicornis sp. nov.
(Text fig. 4.)

Worker.—Length, 7·5-8 mm.

Head, thorax and node brown, mandibles and legs lighter brown, scapes black, funiculi reddish at apex, gaster shining, reddish-brown.

Mandibles and scapes very finely and densely striate longitudinally. Clypeus finely punctate-rugose longitudinally. Head very finely and densely striate-reticulate, striae diverging outward behind, with a few small, very shallow, scattered punctures. Pronotum more densely and finely striate-reticulate, with a more or less circular direction, punctures smaller, shallower and fewer than on head. Mesonotum and top of epinotum more strongly striate-reticulate, transversely; epinotal declivity more striate-rugose; punctures smaller, deeper and more abundant. Top of node strongly punctate-rugose, punctures large and deep. Postpetiole very finely and densely striate, transversely arched. First segment of gaster very finely striate longitudinally. Legs densely reticulate.

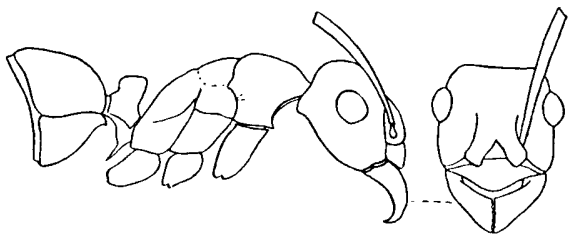


FIG. 4. RHYTIDOPONERA FLAVICORNIS sp. nov.
Worker.

Hair yellow, long and erect on front of clypeus, under surface of head, and apex of gaster, very short and sparse on head, thorax and antennae, more abundant but very short and adpressed on gaster and legs.

Head very slightly longer than broad, sides feebly convex, occipital border straight or feebly concave, angles rounded, no traces of a crest. Mandibles with numerous small sharp teeth. Clypeus sharply convex in front, flatly convex above. Frontal area triangular, deep. Frontal carinae barely as long as broad in front. Scapes extend beyond occipital border by almost half their length; second and third segments of funiculus equal in length, very slightly longer than first, apical segment not as long as the two preceding together. Eyes large and projecting, placed at posterior third of sides of head. Thorax fully twice as long as broad. Pronotum one-third broader than long, convex in all directions. Pro-mesonotal suture sharply impressed. Meso-epinotal suture feebly indicated. Mesonotum bluntly pointed in front, strongly convex transversely, almost one-third broader than long. Epinotum strongly convex transversely. In profile pronotum sloping downward in front, flat on top, base and apex strongly convex, higher than mesonotum. Pro-mesonotal suture wide and deep. Mesonotum and epinotum form an even arch from base to apex; suture very feebly indicated. Node twice as long as broad, oval, convex in all directions. In profile longer than high, anterior face feebly convex, posterior straight, in some examples feebly concave, dorsum flat, slightly higher in front than behind, anterior and posterior edges rounded; ventral spine straight, very long and slender, fully four times as long as broad at base. Postpetiole fully one-third broader than long, strongly convex, almost hemispherical. Constriction between postpetiole and first segment sharp and deep. First segment of gaster barely one-third broader than long, sides feebly convex. Legs long and slender.

Male.—Unknown.

Habitat.—Western Australia: Mundi Windi (L. Glauert).

Type in Western Australian Museum.

Near *R. micans* Clark but readily separated by the shape of the thorax and node. The sculpture, too, is slightly coarser.

Rhytidoponera maniae Forel.
(Pl. V, fig. 42.)

Ectatomma (Rhytidoponera) maniae Forel, Ann. Soc. Ent. Belg., xliv, p. 57, 1900, ☿.

Rhytidoponera (Rhytidoponera) maniae Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Rhytidoponera mayri Em. r. *glabrius* For. var. *rotundata* Stitz, Sitz. Ges. Naturf. Fruende, Berlin, No. 8, 1911, ☿.

Worker.—Length, 10 mm.

Blackish-brown. Mandibles, antennae and legs reddish-brown.

Mandibles, scapes and tibiae finely striate longitudinally, each with numerous very small piligerous punctures. Clypeus irregularly, almost longitudinally punctate-rugose. Head very finely and densely reticulate, longitudinally striate between frontal carinae, striae diverging outward behind, with numerous large shallow scattered punctures between the striae, shining at bottom, widely separated from each other, thorax very finely and densely reticulate as on head. Anterior half of pronotum finely striate transversely, irregularly punctate-rugose behind, the punctures large and shallow, widely spaced in front, closer together behind. Mesonotum more abundantly punc-

tate, the punctures smaller and separated. Epinotum finely striate transversely in front, more rugose behind, a few widely separated shallow punctures in front more numerous and closer behind and on declivity. Node punctate-rugose on top, more finely striate in front. Postpetiole very finely and densely striate, transversely arched, with numerous, very small, shallow piligerous punctures. First segment of gaster similar, but the striae more or less obsolete. Femora finely reticulate with numerous small piligerous punctures.

Hair yellow, long and erect on front of clypeus and apical margin of gaster segments, short and sparse on rest of body, adpressed on gaster, very short and suberect on antennae and legs.

Head one-fifth longer than broad, convex, occipital border feebly concave in middle, angles strongly rounded. Mandibles furnished with strong sharp denticles, smaller behind than in front. Clypeus strongly convex in front and above. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal length, slightly shorter than second, apical as long as the two preceding together. Eyes placed at posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture strongly impressed, meso-epinotal suture weakly defined. Pronotum very slightly broader than long, sides and dorsum feebly convex. Mesonotum one-fourth broader than long, feebly convex and bluntly pointed in front, strongly convex behind and on sides and dorsum. Epinotum strongly convex transversely. In profile pro-mesonotal suture strongly impressed, meso-epinotal suture weakly impressed. Pronotum convex, sloping downward in front. Mesonotum convex. Epinotum straight, slightly lower than mesonotum, strongly rounded into declivity behind. Node thin and scale-like, three times broader than long, anterior and posterior faces straight, sides and dorsum convex. In profile top portion thin, not as long as high behind, both faces straight and parallel, dorsum feebly convex, anterior face concave near bottom. Ventral spine long, slender and sharp, two and one-half times longer than broad at base. Postpetiole one-fourth broader than long, strongly convex on sides and in front. First segment of gaster one-fourth broader than long, very strongly convex behind. Constriction between the two segments broad and deep. Legs long and robust.

Male.—Unknown.

Habitat.—*South Australia*: Mt. Lofty (F. E. Wilson, R. Blackwood); Adelaide.

Rhytidoponera spatiata Forel.

(Pl. V, figs. 43-44.)

Ectatomma (Rhytidoponera) convexum Mayr var. *spatiatum* Forel, Ann. Soc. Ent. Belg., xliv, p. 68, 1900, ☿.

Rhytidoponera (Rhytidoponera) convexa Mayr subsp. *spatiata* Forel, Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿

Worker.—Length, 8-9 mm.

Dark chocolate-brown. Mandibles, antennae and legs lighter brown.

Mandibles and scapes very finely and densely striate longitudinally. Clypeus longitudinally rugose. Head very finely and densely reticulate-punctate, with numerous large shallow punctures, shining at bottom; longi-

tudinally striate in the middle, the striae diverging outward behind. Pronotum very finely and densely striate-reticulate, longitudinally arched, with some large, shallow, scattered punctures, shining at bottom. Mesonotum and epinotum very finely and densely striate-reticulate transversely, with large, shallow scattered punctures. Node very finely and densely striate, circularly on top, more coarsely and transversely striate in front. Postpetiole finely striate, transversely arched. First segment of gaster finely striate longitudinally. Legs finely striate-reticulate, transverse on femora, longitudinal on tibiae.

Hair yellow, erect, very short and sparse throughout, except on clypeus and apex of gaster. No pubescence.

Head one-fifth longer than broad, sides and occipital border feebly convex, angles rounded, occipital crest very feeble. Mandibles very finely denticulate. Clypeus convex above and in front. Frontal area large, rather deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal in length, apical as long as the two preceding together. Eyes large and convex, placed almost at posterior third of sides. Thorax fully twice as long as broad, pro-mesonotal suture strongly impressed. Pronotum one-fourth broader than long, rectangular, feebly convex transversely. Mesonotum one-fourth broader than long, strongly convex in all directions, epinotum strongly convex transversely. In profile convex longitudinally with a distinct break at sutures. Pronotum dropping abruptly in front, convex, epinotum more flatly convex. Node twice as broad as long, oval. In profile broader at base than above, anterior face straight, sloping forward below, posterior face straight, sloping backward below, rounded into dorsum, latter flat, anterior edge sharp, ventral spine short, slender and sharp. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster fully one-fourth broader than long, strongly convex behind. The constriction sharp but not deep. Legs long and robust.

Male.—Length, 7-8 mm.

Dark chocolate-brown. Mandibles, clypeus, antennae and legs lighter brown. Wings yellowish, nervures brown.

Mandibles very finely striate longitudinally. Clypeus and head rather finely punctate-rugose, interstices finely reticulate. Pronotum transversely rugose, with some large, shallow, scattered punctures, interstices densely reticulate. Mesonotum punctate-rugose, the punctures smaller, shallow and more scattered in front, all punctures shining at bottom, interstices densely reticulate. Scutellum punctate-rugose as on mesonotum. Epinotum coarsely rugose transversely, with numerous large shallow punctures near middle. Node and gaster shining, very finely and superficially striate transversely. Legs very finely and densely reticulate.

Hair yellow, short and erect on clypeus, long and erect on apex of gaster, sparse elsewhere on body, very short and suberect on antennae and legs.

Head one-fourth longer than broad, strongly convex behind the eyes. Mandibles with numerous small denticles. Clypeus broadly convex in front and above. Frontal area small and shallow. Frontal carinae as long as broad in front, broadest behind. Second segment of funiculus as long as scape, four times longer than first. Eyes occupy fully one-third of the sides. Ocelli small and convex. Thorax twice as long as broad. Pronotum projecting well beyond mesonotum in front, strongly convex. Mesonotum broadly convex in front and above, feebly convex behind, central groove in front and parapsidal furrows sharply impressed, mayrian furrows weakly impressed

in front, obsolete behind. Scutellum almost circular, broader than long. Epinotum strongly convex transversely. In profile pro-mesonotal suture deeply impressed. Pronotum strongly convex and sloping downward in front. Mesonotum strongly convex in front, posterior fourth flat and straight. Scutellum dome-shaped, fully twice as long as high. Metanotum longer than high, bluntly pointed. Epinotum convex and sloping downward in front, the ventral spine thorn-like, as long as broad at base. Postpetiole one-third broader than long, sides strongly convex. First segment of gaster one-third broader than long, slightly broader behind than in front, sides convex. Constriction between the two segments deep and narrow. Legs long and slender.

Habitat.—Victoria: Lake Hattah (J. E. Dixon); Patho (H. Potter). *New South Wales*: Finley (W. B. White). *South Australia*: Murray Bridge (A. H. Elston).

Rhytidoponera nodifera Emery.
(Pl. V, figs. 45-46.)

Ectatomma (Rhytidoponera) convexum Mayr var. *nodiferum* Emery, Ann. Soc. Ent. Belg., xxxix, p. 348, 1895, ☿.

Rhytidoponera (Rhytidoponera) convexa Mayr var. *nodifera* Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿

Ectatomma (Rhytidoponera) rothneyi Forel, Ann. Soc. Ent. Belg., xliv, p. 56, 1900, ☿.

Rhytidoponera rothneyi subsp. *mediana* Viehm., Ent. Meitt., Berlin, xiii, p. 224, 1924, ☿.

Rhytidoponera pronotalis Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 588, 1925, ☿.

Worker.—Length, 9-10 mm.

Head, thorax and node blackish-brown; gaster black, with a faint metallic green reflection, particularly in live specimens. Basal half of mandibles and scapes brown, apical half of mandibles, the whole of the funiculus and legs lighter, more reddish.

Mandibles and scapes very finely striate longitudinally. Head coarsely punctate-rugose, the punctures deep and shining at bottom. Thorax and node very finely striate-rugose and rather densely covered with large, deep, shining punctures. The striation on pronotum is longitudinal on the basal half, transversely arched on apical half. Mesonotum and epinotum transversely striate. Node circularly striate. Postpetiole and first segment of gaster finely striate transversely, arched at the front of both segments, with numerous small shallow punctures.

Hair yellow, long and erect on clypeus, front of head and apex of gaster, shorter and suberect on antennae and legs, very short, fine and adpressed on gaster, not apparent on thorax and node. Pubescence on funiculus only.

Head one-sixth longer than broad, broader in front than behind, sides convex, occipital border straight, angles strongly rounded, some examples show a feeble crest, but others show no crest. Mandibles with numerous small teeth. Clypeus strongly convex above and in front. Frontal area large and shallow. Frontal carinae not as long as broad in front, about one-third broader in front than behind. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal

in length, slightly shorter than second, apical as long as the two preceding together. Eyes large and convex, placed just behind the middle of the sides. Thorax fully twice as long as broad, sutures well defined. Pronotum as long as broad, broader behind than in front, feebly convex transversely in front, flat or feebly depressed behind, giving the angles a raised appearance. Mesonotum one-third broader than long, oval, strongly convex transversely, epinotum convex transversely. Node barely one-third broader than long, almost straight behind, strongly convex in front, a longitudinal groove in middle of dorsum sharply impressed. In profile twice as high as long, sides parallel, the anterior face vertical, straight above, concave below, posterior straight, rounded into dorsum, the latter flat, sloping downward behind, anterior edge sharp, the ventral spine short, slender, parallel and sharp. Postpetiole fully one-fourth broader than long, strongly convex in front, on some specimens there is an indication of a median impression. First segment of gaster also broader than long, strongly convex behind. The constriction between the two segments sharp and deep. Legs long and stout.

Male.—Length, 9·5 mm.

Reddish-brown, gaster darker, more brownish. Wings with a smoky yellowish tinge, nervures brown.

Mandibles very delicately striate longitudinally. Head rather coarsely punctate-rugose, the punctures large, shining at bottom, finely and densely reticulate between punctures. Pronotum finely and densely striate transversely with numerous shallow punctures. Centre of mesonotum and whole of scutellum coarsely punctate-rugose, the punctures large and deep, shining at bottom, front and sides of mesonotum rather coarsely reticulate. Epinotum striate-reticulate on top, strongly punctate on sides. Node and postpetiole shining, transversely striate, striae obsolete. First segment of gaster smooth and shining in front, some obsolete transverse striae behind.

Hair yellow, long and erect throughout, short and adpressed on antennae and legs.

Head fully one-fifth longer than broad, strongly convex behind the eyes. Mandibles with numerous very small sharp teeth. Clypeus broadly convex above and in front. Frontal area oblong, broader than long. Frontal carinae as long as broad behind, much narrower in front, with traces of a longitudinal carina between them, the carina strongest in front. Second segment of funiculus slightly shorter than scape and almost five times longer than first segment. Eyes convex, occupying barely one-third of the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting in front of mesonotum below, strongly convex. Mesonotum as long as broad, strongly convex in front, straight behind, mayrian furrows deeply impressed in front, broad and obsolete behind, parapsidal furrows strongly, but not sharply, impressed, a deep, wide and sharp longitudinal groove on anterior fourth. Scutellum one-fifth broader than long, anterior border and sides straight, posterior border strongly convex. Metanotum two and one-half times broader than long, strongly convex. Epinotum broadly convex transversely. In profile pro-mesonotal suture strongly impressed. Pronotum sloping downward and forward at an obtuse angle, feebly convex. Mesonotum strongly convex in front and above. Scutellum convex above, fully three times longer than high. Metanotum slightly higher than long, convex above. Dorsum of epinotum convex, rounded into declivity, the latter straight, at an obtuse angle, longer than dorsum. Node not distinct, broadest behind. In profile almost parallel, feebly convex from apex to base, the ventral spine slender and sharp, fully twice as long as broad at

base. Postpetiole one-sixth broader than long, sides strongly convex. First segment of gaster fully one-third broader than long, sides almost parallel, feebly convex. Genitalia retracted. Legs long and slender.

Habitat.—Queensland: Laidley (H. Hacker); Toowoomba (W. B. Barnard); Stanthorpe (E. E. Sutton). *New South Wales*: Lismore (F. C. Deuquet); Wardell (J. Clark).

Originally described as a variety of *R. convexa* Mayr, this species really belongs to the *cristata* group.

Rhytidoponera foveolata Crawley.
(Pl. V, fig. 47-48.)

Rhytidoponera foveolata Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 581, 1925, ☿.

Worker.—Length, 9 mm.

Dark chocolate-brown, mandibles, funiculi and legs reddish-brown.

Mandibles rather coarsely and densely striate. Scapes very finely and densely striate. Clypeus longitudinally rugose. Head punctate-reticulate, the punctures large and shining at bottom, rather finely striate-rugose between frontal carinae. Thorax and node densely punctate-reticulate as on head. Postpetiole and first segment of gaster very finely and densely reticulate, with numerous large, very shallow punctures and traces of transversely arched striae at anterior of postpetiole, first segment with traces of longitudinal striae. Legs finely punctate.

Hair yellowish red, a few rather long on front of clypeus and apex of gaster, very short and erect elsewhere, much shorter on scapes than on legs.

Head very slightly longer than broad, slightly broader behind than in front, sides convex, occipital border concave in middle, angles strongly rounded, a feeble crest on the occipital border. Mandibles edentate. Clypeus strongly convex above and in front. Frontal area large but not deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by almost half their length. First segment of funiculus shorter than second, apical as long as the two preceding together. Eyes convex, placed at posterior third of sides. Thorax barely twice as long as broad, sutures sharply impressed. Pronotum broader than long, sides almost parallel, dorsum convex. Mesonotum one-fourth broader than long, strongly convex. Epinotum strongly convex transversely. In profile evenly convex longitudinally, broken at sutures. Node fully one-third broader than long, oval, a narrow, rather deep, longitudinal groove in the middle. In profile twice as long as high, anterior and posterior faces parallel, anterior face slightly concave, dorsum straight, sloping backward and rounded into posterior face, the ventral spine thorn-like, long, slender and sharp. Postpetiole one-fourth broader than long, almost hemispherical. First segment of gaster one-eighth broader than long, strongly convex behind; the constriction between the two segments narrow and deep. Legs robust.

Male.—Length, 10·5-11 mm.

Blackish-brown. Mandibles, clypeus, antennae and legs brown. Wings with a yellowish tinge, nervures brown. Mandibles longitudinally striate. Head and thorax irregularly punctate-rugose. Node transversely rugose. Postpetiole very densely reticulate, with some large, very shallow, scattered punctures. Gaster more finely and densely reticulate and with similar large punctures. Legs very finely reticulate.

Hair reddish, long, erect and abundant throughout, rather shorter and suberect on antennae and legs.

Head one-sixth longer than broad behind the eyes, occipital border strongly convex to eyes. Mandibles with numerous small sharp teeth. Clypeus broadly convex in front and above, with a distinct longitudinal carina. Frontal area indistinct. Frontal carinae slightly longer than broad in front, much broader behind, with a distinct longitudinal ridge between them. Scapes extend to posterior margin of anterior ocellus. Second segment of funiculus one-fourth shorter than scapes and five times longer than first. Eyes large and convex, occupying fully one-third of the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting slightly in front of mesonotum, strongly convex. Mesonotum two and one-half times broader than long, broadly cone-shaped in front, feebly convex behind, a sharp, deep longitudinal groove on anterior fourth, mayrian furrows weakly indicated, parapsidal furrows sharply impressed. Scutellum barely one-third broader than long, anterior edge straight, sides, posterior border and dorsum strongly convex. A deep and wide constriction between pronotum and mesonotum with a raised disc-like protruberance at each side. Metanotum small, convex both ways. Epinotum convex transversely. In profile pronotum erect, convex, a sharp deep impression at suture. Mesonotum strongly convex from apex to base. Scutellum dome-shaped, twice as long as high. Metanotum very slightly longer than high, rounded above. Epinotum strongly convex from base to bottom of declivity. Node almost parallel, feebly convex behind. In profile very low and convex, much longer than the stalk in front, the ventral spine very slender and sharp, directed slightly backward, four times as long as broad at base. Postpetiole one-third broader than long, sides and front strongly convex. The constriction between the two segments broad and deep. Genitalia retracted. Legs long and slender.

Habitat.—Western Australia: Mundaring (J. Clark) (type locality).

This species is widely distributed on the Darling Range.

Rhytidoponera punctigera Crawley.

(Pl. VI, fig. 49.)

Rhytidoponera punctigera Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 582, 1925, ☿

Worker.—Length, 9·5 mm.

Head, thorax and node chocolate-brown, gaster lighter brown; mandibles, funiculus and legs reddish.

Mandibles and scapes finely striate longitudinally and very finely punctate. Clypeus punctate-rugose. Head very finely striate, longitudinal in the middle, diverging outward behind, somewhat coarser on cheeks, sparsely covered with large shallow punctures, shining at bottom. Front of pronotum and of epinotum finely striate transversely, mesonotum irregularly striate, all three segments coarsely punctate-reticulate. Node transversely striate-reticulate. Postpetiole finely transversely arched striate, first segment of gaster more finely striate transversely. Both segments with numerous small shallow punctures. Legs very finely reticulate-punctate.

Hair yellow, short and erect on clypeus and apical segments of gaster, very short and adpressed on scapes, gaster and legs, not apparent on thorax. Pubescence only on funiculus.

Head slightly longer than broad, sides slightly convex to eyes, occipital border broadly convex to posterior edge of eyes. Mandibles with numerous very small teeth. Clypeus broadly convex above, convex and bluntly pointed in front. Frontal carinae as long as broad in front. Frontal area triangular, large and deep. Scapes extend beyond occipital border by fully one-third their length. First three segments of funiculus equal in length, apical as long as the two preceding together. Eyes placed at anterior third of sides. Thorax fully twice as long as broad, pro-mesonotal suture sharply impressed. Pronotum as long as broad, sides almost straight, dorsum feebly convex transversely, posterior corners prominent, but not projecting. Mesonotum one-third broader than long, strongly convex in all directions, the anterior border bluntly pointed. Epinotum strongly convex. In profile convex longitudinally with a distinct break at the pro-mesonotal suture. Pronotum dropping rather abruptly in front, strongly convex but slightly flattened in the middle. Mesonotum convex, higher than epinotum, the latter convex from base to apex. Node almost twice as broad as long, oval, bluntly pointed in front, a deep longitudinal groove in the middle. In profile almost twice as high as long, the anterior face straight, vertical but concave at base, posterior face short and straight, rounded into dorsum, the latter flat, sloping downward and backward, anterior edge rounded; the ventral spine very short and sharp. Postpetiole almost one-third broader than long, strongly convex in front, a faint longitudinal impression on top behind. First segment of gaster one-fourth broader than long, strongly convex behind, the constriction between the two segments strong but not deep. Legs robust.

Male unknown.

Habitat.—Western Australia: Ludlow (type locality) (J. Clark).

Redescribed from a co-type, and a series from the type colony. The original locality given by Crawley as Manjimup is an error, probably owing to misplaced labels.

Rhytidoponera incisa Crawley.

(Pl. VI, fig. 50.)

Rhytidoponera (Rhytidoponera) incisa Crawley, Ann. Mag. Nat. Hist., 8, xv, p. 132, 1915, ☿.

Worker.—Length, 10-11 mm.

Black. Mandibles, scapes, legs and gaster brown, funiculi and tarsi reddish-brown.

Mandibles, scapes and tarsi very finely and densely striate longitudinally. Head, thorax and node very finely and densely reticulate with large, shallow punctures sparsely scattered throughout, feebly striate between frontal carinae diverging outward to occipital angles, clypeus more rugose with a distinct central carina. Gaster much more densely and finely reticulate.

Hair yellow, long and erect on front of clypeus and apical segments of gaster, very short, erect and sparse on antennae, body and legs.

Head slightly longer than broad, very slightly broader in front than behind, sides convex, occipital border with a moderately deep concave depression in middle, angles bluntly rounded. Crest obsolete except on angles. Mandibles with numerous small sharp teeth. Clypeus rather flatly convex above with a faint longitudinal median carina, anterior border strongly con-

vex. Frontal area large and triangular. Frontal carinae rather flat above, as long as broad in front. Scapes extend beyond occipital border by one-third their length. First three segments of funiculus equal in length, apical barely as long as the two preceding together. Eyes behind the middle of the sides. Thorax fully twice as long as broad, pro-mesonotal suture sharply, but not deeply, impressed. Pronotum one-fifth longer than broad, sides straight, parallel, dorsum convex transversely. Mesonotum slightly broader than long, broadest in front, strongly convex. Epinotum strongly convex. In profile pronotum convex, dropping abruptly in front. Mesonotum convex. Epinotum convex to bottom of declivity, with no traces of a boundary between the two faces. Node oval, twice as broad as long, with a distinct longitudinal groove in middle. In profile high, subparallel, somewhat dome-shaped, anterior face convex, sloping forward below, dorsum strongly convex, rounded into anterior and posterior faces, the ventral spine long and very slender. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster fully one-fourth broader than long; the constriction between the two segments deep and wide. Legs long and robust.

Male unknown.

Habitat.—Northern Territory: Alice Springs (type locality) (G. F. Hill, 1913; C. Barrett, 1933.)

Rhytidoponera malandensis Forel.
(Plate VI, fig. 51.)

Rhytidoponera lacinosa Viehm. var. *malandensis* Forel, Arkiv. f. Zool., 9, 16, p. 10, 1915, ☿ ♂.

Worker.—9-9·5 mm.

Chocolate-brown, apical half of the funiculus and all the legs brownish-red.

Mandibles, scapes and tibiae finely striate longitudinally. Head coarsely punctate-rugose, the rugae with a more or less longitudinal direction, antennal fovea finely reticulate-striate. Thorax and node coarsely punctate-rugose, the punctures large and deep, shining at bottom. Postpetiole coarsely punctate-rugose, the rugae with a distinct transversely arched direction. First segment of gaster very coarsely rugose, the rugae longitudinal. Femora transversely striate-reticulate.

Hair yellow, long, erect and abundant throughout, slightly shorter on antennae and legs.

Head one-eighth longer than broad, almost as broad behind as in front, sides evenly and feebly convex, occipital border straight, with a faint crest, angles strongly rounded. Mandibles with numerous very small sharp teeth, widely spaced. Clypeus strongly convex above and in front, bluntly pointed. Frontal area triangular, large and shallow. Frontal carinae as long as broad in front, slightly raised in front. Scapes extend beyond occipital border by fully one-third their length. Second and third segments of funiculus equal in length, one-fifth longer than first, apical longer than the two preceding together. Eyes placed just behind the middle of sides. Thorax twice as long as broad, pro-mesonotal suture sharply impressed. Pronotum barely as long as broad, broadest at middle, sides and dorsum strongly convex. Mesonotum and epinotum strongly convex transversely. In profile the pro-mesonotal suture sharply excised, no traces of a meso-epinotal suture. Pronotum strongly convex longitudinally, meso-epinotum straight, sloping downward

behind, rounded into declivity, the latter short and convex. Node twice as broad as long, oval, strongly convex in all directions. In profile higher than long, slightly longer at top than at base of posterior face, anterior face short and inclined inwards on top, then descending forward at an obtuse angle, convex, posterior face convex, rounded into the convex dorsum; the ventral spine very short and sharp. Postpetiole one-third broader than long, strongly convex in front. First segment of gaster one-fifth broader than long, strongly convex behind. The constriction between the two segments sharp and deep but not wide. Legs long, rather slender.

"*Male.*—Length, 8·5-8·9 mm. (after Forel).

"Kopf rhombenförmig; seine Seiten hinter und vor den in der Mitte gelegenen Augen verschmälert, konvergierend und fast gerade. Der Kopf ist etwas länger als breit. Fühlerschaft etwa 4½ Mal länger als breit; erstes Geisselglied länger als breit. Scutellum nicht buckleförmig hervorragend wie bei *convexum*. Stielchen hinten breiter, gut zweimal länger als hinten breit; der Knoten ist vom Vorderstiel kaum zu unterscheiden. Postpetiolus vorn niedrig und schmal, hinten verbreitert. Kopf und Thorax grob genetzt, oder längsgerunzelt; der Postpetiolus und das folgende Segment sind fein längsgerunzelt und genetzt, glänzend. Fühler und Beine abstehend behaart, Flügel bräunlich gefärbt."

Habitat.—North Queensland: Malanda (E. Mjoberg).

Redescribed from a co-type received from Prof. Sjostedt.

Rhytidoponera reticulata Forel.
(Pl. VI, fig. 52.)

Ectatomma (Rhytidoponera) reticulatum Forel, Ann. Soc. Ent. Belg., xxxviii, p. 458, 1893, ☿.

Rhytidoponera (Chalcoponera) reticulata Emery, Gen. Ins., fasc. 118, p. 39, 1911, ☿; Deutsch. Ent. Zeitschr., p. 78, 1912, ☿.

Rhytidoponera reticulatum Crawley, Ann. Mag. Nat. Hist., 9, vii, p. 88, 1921, ♂.

Worker.—Length, 8 mm.

Head, antennae and thorax blackish-brown. Mandibles, legs, node and gaster reddish-brown.

Mandibles, scapes and tibiae finely and densely striate longitudinally. Clypeus longitudinally rugose. Head and thorax punctate-rugose. Top of node circularly striate-reticulate, anterior face transversely striate. Postpetiole longitudinally arched striate, first segment of gaster very finely and densely striate longitudinally.

Hair yellow, moderately abundant throughout, short and erect, shorter and suberect on funiculi and legs.

Head one-fifth longer than broad, broader in front than behind, sides feebly convex, occipital border concave, angles rounded. Mandibles denticulate. Clypeus convex above and in front. Frontal carinae as long as broad in front. Frontal area large. Scapes extend beyond occipital border by barely one-third their length. First and third segments of funiculus equal length, second very slightly longer, almost same length, apical barely as long as the two preceding. Eyes rather protruding, placed behind middle of sides. Thorax twice as long as broad. Pronotum one-fourth broader than

long, strongly convex in all directions. Mesonotum one-third broader than long, strongly convex. Epinotum very short and convex. In profile strongly convex longitudinally, deeply excised at the mesonotal sutures. Node as long as broad, circular, sharply pointed behind. In profile higher than long, anterior and posterior faces almost parallel, both feebly concave, dorsum feebly convex, anterior edge rounded, posterior edge sharp, the ventral spine long and broad, the anterior edge ending in a long sharp point directed backward. Postpetiole slightly broader than long, bell-shaped, first segment of gaster also broader than long, the constriction between the two segments rather deep and wide. Legs long and robust.

Male.—Length, 7·0 mm. (after Crawley).

"Bright castaneous, shining; antennae and teeth of mandibles darker.

"A short and fine pilosity scattered over whole body; legs with exserted hairs, underside of scape with a row of similar hairs, funiculi hairy, with both exserted hairs and pubescence.

"Mandibles broad, with numerous small teeth. Clypeus arched, the anterior border convex. Head narrowed behind eyes, which are large and prominent, occupying more than three-quarters of sides of head. Scape two-thirds as long as second joint of funiculus, which is the longest joint. First joint as broad as long; third, fourth, and fifth subequal, thence diminishing gradually to the apical, which is half as long again as the penultimate.

"Promesonotum arched, metanotum very prominent. Epinotum feebly curved. Node from above long and narrow; the anterior quarter is divided from the rest by a transverse ridge beyond which the node narrows and widens again to the base. In profile it is low, rising to its highest point behind, the projecting ends of the above-mentioned ridge forming a break at the anterior quarter. Gaster deeply constricted between the first and second segments.

"Mandibles finely striate. Clypeus and rest of head coarsely and irregularly longitudinally rugose. Promesonotum and metanotum with coarse, shining, reticulate punctures, which tend to become longitudinal in direction on the latter part of mesonotum and on the metanotum. Sides of thorax and the epinotum irregularly longitudinally rugose, the node slightly roughened, gaster smooth. Coxae and femora faintly reticulate."

Habitat.—*Northern Territory*: Port Darwin (type locality) (G. F. Hill; Sir B. Spencer; C. Barrett).

Rhytidoponera crassinodis Forel.

(Pl. VI, fig. 53.)

Ectatomma (Rhytidoponera) crassinode Forel, Fauna Sudwest. Austrl., i, p. 270, 1907, ☿.

Rhytidoponera (Rhytidoponera) crassinodis Forel, Emery, Gen. Insect., fasc. 118, p. 38, 1911, ☿.

Rhytidoponera crassinodis Forel, Arkiv. f. Zool., 9, 16, p. 11, 1916, ☿ ♂.

Worker.—Length, 8-9 mm.

Head, thorax and gaster chocolate brown, funiculi and legs lighter, more reddish.

Mandibles, scapes, and tibiae finely and densely striate longitudinally. Clypeus longitudinally rugose. Head coarsely rugose, longitudinal between the frontal carinae, diverging outward behind. Thorax and node coarsely

punctate-rugose, transversely rugose on declivity and anterior face of node. Postpetiole circularly and finely striate, first segment of gaster more finely striate longitudinally.

Hair yellow, sparse, very short and erect throughout, longest on clypeus.

Head one-seventh longer than broad, almost as broad behind as in front, sides convex, occipital border slightly concave in middle, angles rounded. Crest feeble. Mandibles without teeth, edges sharp. Clypeus rather short, convex above and in front. Frontal carinae not as long as broad in front, twice as broad in front as behind. Frontal area triangular with a large shallow puncture in middle. Scapes extend beyond occipital border by fully one third their length. First to fourth segments of funiculus equal in length, all twice as long as broad, apical as long as two preceding together. Eyes almost at posterior third of sides. Thorax one-third longer than broad. Pronotum one-third broader than long, sides and front convex, dorsum flattened. Mesonotum oval, broader than long, convex in all directions. Epinotum very short. In profile convex longitudinally, pro-mesonotal suture sharply defined, meso-epinotal suture indicated by a slight depression. Pronotum strongly convex, dropping in front. Mesonotum flatly convex, dorsum of epinotum very short and straight, rounded into declivity, the latter fully twice as long as dorsum. Node oval, one-third broader than long. In profile twice as high as long, anterior and posterior faces parallel, dorsum flat, borders convex, the ventral spine very sharp, thorn-like, three times as long as broad at base. Postpetiole one-fifth broader than long, strongly convex in front, sides feebly convex. Constriction between postpetiole and first segment of gaster deep and wide. First segment of gaster one-fifth broader than long, strongly convex behind. Legs long and slender.

Male.—Unknown.

Habitat.—North Western Australia: Derby (J. Campbell).

The examples from Derby are smaller than those described by Forel but no other differences are to be seen. Forel recorded the male of this species from Derby but did not describe it.

Rhytidoponera reflexa sp. nov.

(Pl. VI, fig. 54.)

Worker.—Length, 7 mm.

Dark chocolate-brown, funiculi, gaster and legs reddish-brown.

Mandibles and scapes very finely and densely striate longitudinally. Clypeus longitudinally rugose. Head coarsely punctate-rugose, almost longitudinally rugose between frontal carinae, the punctures deep and shining at bottom. Thorax and node coarsely punctate-rugose similar to head, a few fine transverse rugae on anterior fourth of pronotum and coarse transverse rugae on epinotal declivity, anterior face of node transversely striate. Both segments of gaster delicately striate, transversely arched, with some very small scattered punctures. Legs finely reticulate, longitudinally on the tibiae, coarser and more transverse on coxae.

Hair yellow, short and erect, moderately abundant throughout.

Head very slightly longer than broad, almost circular. Mandibles with numerous very small sharp teeth. Frontal area large, deep in front, shallow

behind. Frontal carinae longer than broad in front, almost parallel behind the lobes. Scapes extend beyond occipital border by almost one-half their length. Second segment of funiculus one-fifth longer than first, third very slightly shorter than second, apical as long as the two preceding together. Eyes placed behind middle of sides. Thorax fully one and one-half times longer than broad, pro-mesonotal suture strongly impressed. Pronotum one-fourth broader than long, broader in front than behind, convex. Mesonotum and epinotum strongly convex transversely, anterior edge of mesonotum feebly convex. In profile dorsum almost straight with strong impression at pro-mesonotal suture and weaker impression at meso-epinotal suture. Pronotum evenly convex on top dropping abruptly at anterior third. Mesonotum evenly convex. Epinotum very short above, straight, rounded into declivity, the latter straight, at an obtuse angle, two and one-half times longer than dorsum. Node as long as broad, pear-shaped with the sharp apex behind, dorsum convex. In profile one-third higher than long on top, anterior face straight and vertical, dorsum feebly convex, as long as anterior face, anterior edge rounded, posterior face prolonged backward, overhanging the posterior face by one-fourth its length, sharp pointed; posterior face concave, sloping forward below; the ventral spine thorn-like, very short and sharp. Postpetiole one-fifth broader than long, cone-shaped sides straight, anterior border convex. First segment of gaster one-fifth broader than long, strongly convex behind. Legs short and robust.

Male.—Unknown.

Habitat.—Northern Territory: Koolpinyah (G. F. Hill; C. L. Barrett); Bathurst Island (G. F. Hill).

Described from a dozen specimens. In the shape of the node this species resembles *R. reticulata* Forel, but otherwise is not near any other known form.

Rhytidoponera foreli Crawley.

(Pl. VI, fig. 55.)

Rhytidoponera (Rhytidoponera) foreli Crawley, Ent. Record, London, xxx, p. 87, 1918, ☿.

Worker.—Length, 5·5 mm.

Head, thorax and node brown, mandibles, antennae, gaster and legs reddish-brown.

Mandibles finely striate longitudinally with a few small scattered punctures. Scapes very finely striate longitudinally. Head, thorax and node coarsely punctate-rugose. Postpetiole finely transversely arched striate. First segment of gaster more finely transversely striate. Legs very finely reticulate and punctate.

Hair yellow, short and erect, moderately abundant throughout. Pubescence not apparent.

Head one-third longer than broad, broader in front than behind, sides convex, occipital border short and straight, the angles sharp. Mandibles with numerous small sharp teeth. Clypeus broadly convex above, convex and bluntly produced in front. Frontal area small and shallow. Frontal carinae erect, not covering the antennal insertions, very slightly longer than broad in front. Scapes extend beyond occipital border by fully one-third

their length. First segment of funiculus one-sixth longer than second, third to fifth slightly longer than first, apical barely as long as the two preceding together. Eyes convex, placed behind the middle of sides. Thorax fully twice as long as broad, sutures sharply impressed. Pronotum one-third broader than long, sides parallel, feebly concave in middle, dorsum feebly convex. Mesonotum circular, as broad as long, strongly convex. Epinotum convex transversely. In profile convex longitudinally with a distinct depression at meso-epinotal suture. Pronotum convex, dropping abruptly in front. Mesonotum convex, dropping behind. Epinotum straight on anterior third then dropping suddenly behind, straight, declivity shorter than dorsum, at an obtuse angle. Node one-third broader than long, oval. In profile higher than long, narrower at top than at bottom, somewhat cone-shaped, dorsum feebly convex, the ventral spine thorn-like, slender and sharp. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster one-fourth broader than long, sides feebly convex; the constriction between the two segments deep and wide. Legs very long and slender.

Male.—Unknown.

Habitat.—Northern Territory: Koolpinyah (type locality) (G. F. Hill, 1915; C. Barrett, 1933).

Rhytidoponera eremita sp. nov.
(Pl. VI, fig. 56.)

Worker.—Length, 8 mm.

Head, thorax and node blackish-brown, gaster black. Mandibles, scapes and legs brown, funiculi reddish.

Mandibles, scapes and tibiae very finely and densely striate longitudinally. Clypeus irregularly rugose, with a distinct sharp longitudinal carina in the middle. Head striate-rugose, longitudinal between frontal carinae, diverging outward behind, with large, shallow, widely-spaced punctures between the striae, interstices very finely reticulate. Pronotum circularly striate-rugose, almost transversely striate in front, with a few very large, shallow, scattered punctures, interstices densely reticulate. Mesonotum irregularly rugose with a few shallow, very scattered punctures. Epinotum transversely rugose, much coarser behind, with very few more or less obsolete punctures. Node circularly striate-rugose, with many small punctures, anterior and posterior faces finely striate transversely. Gaster very densely and delicately striate, transversely arched on postpetiole, transverse on following segment, with numerous very fine punctures. Femora very finely reticulate and punctate.

Hair yellowish-red, long and erect on front of clypeus and apex of gaster, very short and sparse on body, very fine and adpressed on scapes, gaster and legs.

Head one-sixth longer than broad, sides feebly convex, occipital border convex, strongly indented at the middle, a sharp small crest in front, angles rounded. Mandibles finely and irregularly denticulate. Clypeus strongly convex above and in front. Frontal area triangular, small and shallow. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by one-third their length. Second segment of funiculus very slightly longer than third, first slightly shorter than third, apical as long as the two preceding together. Eyes large and convex, placed at posterior third of sides. Thorax barely twice as long as broad. Pro-mesonotal suture sharply defined. Pronotum slightly broader than long, sides and dorsum feebly convex. Meso-

notum and epinotum strongly convex transversely. In profile evenly convex longitudinally, pro-mesonotal suture weakly impressed, meso-epinotal suture feebly indicated. Node barely twice as broad as long, oval. In profile top portion as long as broad, anterior and posterior faces straight, parallel, dorsum straight, one-sixth shorter than posterior face. Ventral spine very short, thorn-like. Postpetiole barely one-third broader than long, broadly cone-shaped in front. First segment of gaster one-fifth broader than long, strongly convex behind. Constriction between the two segments broad and shallow. Legs slender.

Male.—Unknown.

Habitat.—Northern Territory: Tennants Creek; Powell's Creek; Newcastle Waters (C. Barrett, 1933).

Near *R. hilli* Crawley but readily separated by the slightly squarer head, more convex thorax, thicker node and the sculpture.

Rhytidoponera fuliginosa sp. nov.
(Pl. VI, fig. 57.)

Worker.—Length, 7 mm.

Blackish-brown, funiculi and gaster brown.

Mandibles, scapes and tibiae very finely and densely striate longitudinally. Head coarsely punctate-rugose, the punctures large, elongated, deep and shining at bottom, almost longitudinally rugose on cheeks, some very fine longitudinal striae between frontal carinae. Thorax coarsely punctate-rugose, the punctures very large, shallow and shining at bottom. Pronotum striate-reticulate transversely on anterior third, the punctures smaller and shallower than those behind. Posterior half of mesonotum and whole of epinotum transversely rugose, very coarsely on declivity. Node circularly striate-rugose with large scattered punctures, anterior face finely striate transversely. Postpetiole very delicately and densely striate, circularly, or rather following the contour of segment. First segment of gaster more finely striate longitudinally. Femora finely reticulate, with some large piligerous punctures.

Hair yellow, long and erect on front of clypeus and apical segments of gaster, shorter and less abundant on rest of body. Suberect on antennae and legs. Funiculi pubescent.

Head one-sixth longer than broad, sides strongly convex, occipital border with a slight concave depression in the middle, angles broadly rounded, a sharp crest follows the contour of border in front. Mandibles with numerous small sharp teeth. Clypeus broadly convex above and in front. Frontal area deep in front, shallow behind. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by one-third their length. First and third segments of funiculus equal in length, one-fifth shorter than second, apical as long as the two preceding together. Eyes placed just in front of posterior third of sides. Thorax fully twice as long as broad, pro-mesonotal suture sharply impressed. Pronotum one-fourth broader than long, sides and dorsum convex. Mesonotum and epinotum strongly convex transversely. In profile strongly convex longitudinally, with a distinct impression at sutures. Pronotum strongly convex and dropping in front. Mesonotum evenly convex.

Dorsum of epinotum very short, rounded into declivity, the latter three times as long as dorsum. Node one-fourth broader than long, oval, convex above. In profile twice as high as long, anterior face vertical, slightly convex above, concave below. Posterior face vertical, straight above, concave below. Dorsum flat, very slightly longer than posterior face, both edges bluntly rounded. The ventral spine thorn-like, short, rather thick and sharp. Postpetiole one-third broader than long, broadly cone-shaped in front, sides convex. First segment of gaster barely one-third broader than long, strongly convex behind. The constriction between the two segments sharp but not deep. Legs long and rather slender.

Male.—Unknown.

Habitat.—Northern Territory: Birdum (C. Barrett, 1933); Johnston's Lagoon (A. H. Wetherly, 1935).

Rhytidoponera pilosula sp. nov.
(Pl. VI, fig. 58.)

Worker.—Length, 7-7·5 mm.

Black. Mandibles, scapes and legs dark brown, funiculi and tarsi reddish-brown.

Mandibles finely striate-rugose longitudinally, the striae obsolete near base, almost smooth, with numerous small piligerous punctures. Scapes and tibiae more sharply and densely striate longitudinally, with numerous piligerous punctures. Clypeus coarsely punctate-rugose longitudinally. Head coarsely punctate-rugose, the punctures large and deep, shining at bottom, the rugae longitudinal between frontal carinae. Thorax very coarsely punctate-rugose, punctures large and deep, shining at bottom, a few fine irregularly transverse rugae on anterior fourth of pronotum, epinotal declivity coarsely rugose transversely. Node coarsely rugose-striate, circularly on top, transverse on anterior and posterior faces. Postpetiole finely striate, transversely arched, with numerous fine, shallow, piligerous punctures. First segment of gaster similar but the striae obsolete and the fine punctures more numerous. Femora finely reticulate, with very numerous small piligerous punctures.

Hair yellow, long and erect, very abundant throughout, shorter on antennae and legs.

Head fully one-sixth longer than broad, sides evenly convex, occipital border convex, with a concave depression in middle, angles very broadly rounded, a feeble crest following contour of border, interrupted in middle. Mandibles strongly denticulate. Clypeus broadly convex above and in front. Frontal area large, triangular, shallow. Frontal carinae as long as broad in front, one-fourth broader in front than behind. Scapes extend beyond occipital border by fully one-third their length. Second and third segments of funiculus equal in length, one-sixth longer than first, apical shorter than the two preceding together. Eyes placed just behind the middle of sides. Thorax one and three-quarters times longer than broad, sutures sharply impressed. Pronotum one-fourth broader than long, much broader in front than behind, sides and posterior border strongly convex, anterior border feebly convex and bluntly pointed, dorsum and also dorsum of epinotum strongly convex transversely. In profile sutures sharply impressed. Pronotum very strongly and evenly convex, slightly higher than mesonotum, the latter very feebly convex, almost flat, higher than epinotum. Dorsum of epinotum very short, rounded into declivity, the latter straight, three times longer than dorsum.

Node thin, three times broader than long, convex in all directions, a feeble depression in middle of anterior edge. In profile like a slender cone, twice as long at base as on top, anterior and posterior faces convex, dorsum very short and rounded, ventral spine short and sharp, twice as long as broad at base. Postpetiole one-sixth broader than long, broadly convex in front, sides feebly convex. First segment of gaster about one-third broader than long, strongly convex behind. The constriction between the two segments strong but rather shallow. Legs long and rather slender.

Male.—Unknown.

Habitat.—New South Wales: Bourke (C. Barrett, 1933).

Described from a dozen specimens. Readily separated by the shape of the node.

Rhytidoponera nigra sp. nov.
(Pl. VI, fig. 59.)

Worker.—Length, 8 mm.

Black. Mandibles, antennae and legs chocolate-brown.

Mandibles, scapes and tibiae very finely and densely striate. Clypeus coarsely punctate-rugose, the rugae longitudinal. Head coarsely rugose, longitudinal between frontal carinae, diverging outward behind, with numerous large deep punctures between the rugae, interstices densely reticulate. Pronotum circularly and coarsely rugose, with numerous large deep punctures between the rugae, the punctures in front shallow, interstices densely reticulate. Mesonotum coarsely, irregularly rugose, the punctures smaller and more numerous than on pronotum. Epinotum transversely striate-rugose, finer in front than behind, with some large shallow isolated punctures near the middle. Node circularly striate-rugose, anterior and posterior faces transversely striate. Gaster finely striate, transversely arched. Femora finely reticulate.

Hair reddish, long and erect on front of clypeus and apical segments of gaster, shorter but abundant on head and thorax, short and suberect on antennae, legs and gaster.

Head one-fourth longer than broad, sides feebly convex, occipital border short, straight or very feebly convex, angles broadly rounded, with a feeble sharp crest. Mandibles furnished with numerous very small denticles. Clypeus strongly convex above and in front. Frontal area shallow. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by one-third of their length. First three segments of funiculus equal in length, apical twice as long as broad, as long as the two preceding together. Eyes placed in front of the posterior third of sides. Thorax twice as long as broad, sutures sharply impressed. Pronotum one-sixth broader than long, sides feebly convex, dorsum strongly convex transversely. Mesonotum one-fourth broader than long, strongly convex behind and on sides, front feebly convex and bluntly pointed in middle, dorsum strongly convex both ways. Epinotum strongly convex transversely. In profile sutures strongly impressed. Pronotum strongly convex in front, weakly convex behind. Mesonotum evenly convex. Epinotum lower than mesonotum, strongly convex from base to bottom of declivity. Node two and one-half times broader than long, rather scale-like, anterior and posterior faces straight, sides and dorsum convex. In profile slender, anterior and posterior faces straight and parallel, dorsum

straight, one-sixth shorter than posterior face. Ventral spine thorn-like, short and broad, sharp pointed. Postpetiole one-fourth broader than long, strongly convex in front. First segment of gaster one-fifth broader than long, strongly convex behind. Constriction deep and wide. Legs long and rather slender.

Male.—Unknown.

Habitat.—South Australia: Mt. Serle (Hale and Tindale); Owieandana (Hale and Tindale).

Type in South Australian Museum.

Four examples.

Rhytidoponera hilli Crawley.

(Pl. VI, fig. 60.)

Rhytidoponera (Rhytidoponera) hilli Crawley, Ann. Mag. Nat. Hist., 8, xv, 1915, p. 131, ☿.

Worker.—Length, 8 mm.

Head and thorax blackish-brown. Mandibles, funiculi, legs and gaster brown or reddish-brown.

Mandibles, scapes and tarsi very finely and densely striate longitudinally. Clypeus coarsely punctate-rugose longitudinally. Head very finely and densely reticulate, with numerous large shallow scattered punctures, rather widely spaced, some fine longitudinal striae between frontal carinae diverging outward behind. Thorax very finely striate-reticulate. On the pronotum the striae transverse in front, circular behind, transverse on mesonotum and epinotum, much coarser on declivity, the whole thorax with large shallow punctures, more sparse and scattered than on head. Node very finely striate transversely on top and in front, with a few small shallow punctures. Postpetiole very finely and densely striate, transversely arched. First segment of gaster transversely striate, both segments with numerous fine piligerous punctures. Femora finely reticulate, with numerous small piligerous punctures.

Hair yellow, long and erect on front of clypeus and apex of gaster, very short and adpressed elsewhere.

Head one-sixth longer than broad, sides and occipital border slightly convex, angles broadly rounded, a slight concave depression on middle of occipital border and a feeble crest in front. Mandibles with numerous fine denticles. Clypeus strongly convex above and in front. Frontal area triangular, deep. Frontal carinae longer than broad in front. Scapes extend beyond occipital border by fully one-third of their length. Second and third segments of funiculus equal in length, one-sixth longer than first, apical barely as long as the two preceding together. Eyes placed just in front of anterior third of sides. Thorax twice as long as broad, pro-mesonotal suture sharply impressed, meso-epinotal suture feebly impressed. Pronotum broader than long, sides and dorsum convex. Mesonotum one-third broader than long, strongly convex behind and on sides, more weakly convex in front, strongly convex all ways on top. Epinotum strongly convex transversely. In profile promesonotal suture sharply excised, epinotum abruptly dropped at suture. Pronotum convex. Mesonotum flat or straight abruptly truncate behind, higher than epinotum. Epinotum sloping downward behind, convex on anterior half, straight behind, declivity short and straight. Node thin, twice as broad as long, straight in front and behind, sides and dorsum convex. In profile almost one-third higher than long, anterior face straight and vertical,

posterior face straight inclined forward, top straight, one-third shorter than posterior face. The ventral spine very short and sharp, not as long as broad at base. Postpetiole fully one-fourth broader than long, cone-shaped, sides strongly convex. First segment of gaster fully one-fourth broader than long, strongly convex behind. The constriction between the two segments broad and shallow. Legs robust.

Male.—Unknown.

Habitat.—Northern Territory: Stapleton (type locality) (G. F. Hill, 1913).

Redescribed from a co-type and a large series from the type locality.

Rhytidoponera rufiventris Forel.
(Pl. VI, fig. 61.)

Rhytidoponera convexa Mayr v. *rufiventris* Forel, Arkiv. f. Zool., 9, 16, p. 11 ,1915, ☿ ♂.

Rhytidoponera castanea Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 589, 1925, ☿.

Worker.—Length, 8-9 mm.

Chocolate-brown, legs lighter brown, gaster castaneus.

Mandibles, scapes and tibiae very finely striate longitudinally. Head coarsely reticulate-punctate, the punctures large and deep, shining at bottom. Pronotum and mesonotum reticulate-punctate as on head. Epinotum punctate-rugose, the rugae with a transverse direction, declivity transversely striate in front. Postpetiole and first segment of gaster finely striate transversely with very fine piligerous punctures. Femora very finely and densely striate transversely, coxae reticulate-rugose transversely.

Hair yellow, long and erect on clypeus and apical segments of gaster; very short, erect but sparse on head, thorax and gaster, suberect and more abundant on antennae and legs.

Head one-sixth longer than broad, sides feebly convex, occipital border straight or feebly concave in middle, angles broadly rounded, a feeble crest follows the contour of occiput and angles. Mandibles finely dentate. Clypeus broadly convex above, more sharply convex in front. Frontal area large and shallow. Frontal carinae very slightly longer than broad in front. Scapes extend beyond occipital border by fully one-third their length. First and third segments of funiculus equal in length, slightly shorter than second, apical barely as long as the two preceding together. Eyes placed just in front of posterior third of sides. Thorax twice as long as broad; pro-mesonotal suture sharply defined. Pronotum slightly broader than long, sides parallel, feebly convex transversely. Mesonotum one-fourth broader than long, strongly convex in all directions. Epinotum strongly convex transversely. In profile convex longitudinally, with a strong depression at sutures, the pronotum dropping abruptly in front. Node twice as broad as long, strongly convex in all directions. In profile two and one-half times higher than long, narrower on top than below, anterior face straight, sloping forward below, posterior face straight sloping backward below, dorsum straight rounded into posterior face, anterior edge sharp; the ventral spine short, slender and sharp. Postpetiole fully one-fourth broader than long, strongly convex in front. First

segment of gaster one-fourth broader than long, strongly convex behind. The constriction broad but not deep. Legs long and robust.

Male.—Length, 9·3-9·8 mm. (after Forel).

"Auch grösser als der Arttypus mit schönem rötlichem Hinterleib. Der Petiolus ist etwas länglicher mit undeutlicherem Knoten und unten mit einem längern Dorn (auch beim. ☿). Sonst wie der Arttypus."

Habitat.—North Queensland: Herberton (type locality) (E. Mjoberg); Mutchilba (A. D. Selby); Mareeba (H. E. Hill). *Northern Territory*: Birdum (C. Barrett). *North Western Australia*: Derby (J. G. Campbell).

Redescribed from a co-type received from Prof. Sjostedt. Compared with a co-type of *R. castanea* Crawley, I can find nothing to separate them.

Rhytidoponera convexa Mayr.

(Pl. VI, fig. 62.)

Ectatomma convexa Mayr, Jour. Mus. Godeffroy, xii, p. 92, 1876, ☿ ♂.

Rhytidoponera (Rhytidoponera) convexa Emery, Gen. Ins., fasc. 118, p. 37, 1911, ☿ ♂.

Rhytidoponera convexa Mayr race *violacea* For. var. *subumbrata* Crawley, Ann. Mag. Nat. Hist., 9, ix, p. 434, 1922, ☿.

Worker.—Length, 7·5-8 mm.

Blackish-brown. Mandibles antennae and legs brown.

Mandibles, scapes and tibiae very finely striate longitudinally. Head coarsely punctate-rugose, the rugae longitudinal between frontal carinae, diverging outward behind, the punctures large, shallow and scattered, shining at bottom, interstices finely and densely reticulate. Thorax finely and densely reticulate-striate, anterior fourth of pronotum transversely striate with very few large obsolete punctures, rather spaced. Mesonotum with smaller, more numerous, shallow punctures. Epinotum transversely and finely rugose behind, with numerous obsolete punctures. Sides of thorax rather coarsely reticulate with a few very scattered shallow punctures. Node circularly striate above, anterior face shining and with some obsolete transverse striae. Gaster very finely and densely striate transversely arched, shining, the striae not sharp. Femora transversely striate-reticulate.

Hair yellow, long and erect on front of clypeus and apex of gaster, shorter and rather sparse on body, short and suberect on antennae and legs.

Head fully one-fifth longer than broad, sides and occipital border feebly convex, angles broadly rounded, a fine sharp crest follows contour of border. Mandibles very finely denticulate. Clypeus strongly convex above, more broadly convex in front. Frontal area triangular, large and deep. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by fully one-third of their length. First and third segments of funiculus equal in length, one-sixth shorter than second, apical twice as long as broad, much shorter than the two preceding together. Eyes convex, placed just in front of posterior third. Thorax twice as long as broad, pro-mesonotal suture sharply impressed, meso-epinotal suture indicated. Pronotum one-fourth broader than long, sides feebly convex, dorsum more strongly convex. Mesonotum fully one-fourth broader than long, weakly convex in front, strongly convex behind and on sides, dorsum and epinotum strongly

convex transversely. In profile convex longitudinally, sutures deeply impressed. Pronotum strongly convex, dropping down in front. Mesonotum evenly convex. Epinotum short and straight at basal fourth, then inclined downward and backward, declivity four times longer than dorsum. Node thin, rather scale-like, twice as broad as long, oval. In profile slightly longer below than above, anterior face feebly convex, posterior face almost straight, inclined forward on top, dorsum feebly convex, fully half the length of posterior face. The ventral spine obsolete, tubercle-like. Postpetiole one-fourth broader than long, cone-shaped, sides feebly convex. First segment of gaster almost as long as broad, strongly convex behind. Constriction sharp and narrow. Legs robust.

Male.—(After Mayr).

"*Mas.*: Long. 7,5 mm. E. scabri mari simillimus, sed minor, abdomine subtiliter et superficialiter transverse striato, segmento primo, praecipue dimidio antico, fortius striato."

Habitat.—*Queensland*: Rockhampton (type locality); widely distributed along the eastern coast from Brisbane to Cairns.

Rhytidoponera convexa Mayr s.sp. *rufescens* Forel.
(Pl. VI, fig. 63.)

Ectatomma (Rhytidoponera) convexum Mayr var. *rufescens* Forel, Ann. Soc. Ent. Belg., xliv, p. 58, 1900, ☿.

Rhytidoponera (Rhytidoponera) convexa Mayr var. *rufescens* Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿.

Worker.—Length, 7·5 mm.

Brownish-red throughout, terminal segments of gaster very slightly darker.

Mandibles and scapes very finely and densely striate longitudinally. Head coarsely and irregularly punctate-rugose, punctures shining at bottom. Thorax very finely and densely reticulate, with scattered large shallow punctures, epinotal declivity transversely striate. Top of node circularly and very finely striate. Postpetiole and first segment of gaster finely and densely striate, transversely arched. Legs densely reticulate.

Hair yellow, long and erect on front of clypeus and apex of gaster, very short and sparse elsewhere.

Head one-sixth longer than broad, sides and occipital border feebly convex, angles broadly rounded, no crest. Mandibles with numerous fine denticles. Clypeus sharply convex in front, broadly convex above. Frontal area large and shallow. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by one-third their length. Second and third segments of funiculus equal in length, slightly longer than first. Eyes small and convex, placed behind the middle of sides. Thorax fully twice as long as broad. Pronotum one-third broader than long, sides, front and dorsum strongly convex. Pro-mesonotal suture sharply, but not deeply, impressed. Mesonotum one-third broader than long, strongly convex in all directions. Epinotum strongly convex transversely. In profile forming an even arch from apex of pronotum to end of declivity, sutures feebly impressed. Node almost twice as broad as long, oval, strongly convex all ways. In profile slightly higher than long, longer at base than on top, anterior and posterior faces straight, dorsum convex, ventral spine short, thorn-like. Postpetiole one-fifth broader than long, cone-shaped in front. Constriction between postpetiole

and gaster deep but not wide. First segment of gaster fully one-fifth broader than long, strongly convex behind. Legs slender.

Male.—Unknown.

Habitat.—North Queensland: Townsville (F. P. Dodd).

Rhytidoponera convexa Mayr s.sp. *opacior* Crawley. (Pl. VI, fig. 64.)

Rhytidoponera convexa Mayr s.sp. *violacea* Forel var. *opacior* Crawley, Ann. Mag. Nat. Hist., 9, xvi, p. 583, 1925, ☿.

Worker.—Length, 6-7 mm.

Blackish-brown, almost black, gaster with dull metallic violet or blue sheen; apical segments of funiculi and the tarsi brown.

Mandibles and scapes very finely striate longitudinally. Head coarsely punctate-rugose, the punctures large and shallow, shining at bottom, the rugae somewhat longitudinal in the middle, diverging outward behind. Pronotum finely and circularly striate-rugose, with large, rather shallow, scattered punctures, shining at bottom. Mesonotum and epinotum transversely striate, more coarsely striate on declivity, with large, shallow, scattered punctures shining at bottom. Node feebly striate on top, shining, transversely striate on anterior face. Postpetiole and first segment of gaster very finely and densely striate, transversely arched in front, almost circularly arched behind. Legs very finely reticulate.

Hair yellow, erect and long on clypeus and apex of gaster, short and sparse on rest of body; moderately long, suberect and abundant on scapes and legs.

Head one-fifth longer than broad, sides and occipital border straight or feebly convex, angles broadly rounded, occipital crest small but sharp. Mandibles strongly dentate. Clypeus strongly convex above and in front, bluntly pointed. Frontal area triangular, shallow. Frontal ridges slightly longer than broad in front. Scapes extend beyond occipital border by fully one-third their length. Second and third segments of funiculus equal in length, very slightly longer than first, apical barely as long as the two preceding together. Eyes placed at posterior third of sides. Thorax barely twice as long as broad, pro-mesonotal suture sharply impressed. Pronotum one-fourth broader than long, front, sides and dorsum convex. Mesonotum and epinotum strongly convex transversely. In profile pronotum strongly convex and dropping abruptly in front. Mesonotum more flatly convex. Promesonotal suture rather deeply impressed. Epinotum much lower than mesonotum, short, half as long as declivity face, the latter straight, at an obtuse angle. Node two and one-half times broader than long, strongly convex in all directions. In profile three times higher than long, much broader at base than on top, anterior face straight, sloping forward below, posterior face straight, sloping backward below, dorsum short and convex; the ventral spine thorn-like, short, thick and sharp. Postpetiole fully one-fifth broader than long, broadly convex in front. First segment of gaster one-fourth broader than long, strongly convex behind. The constriction between the two segments sharp and deep. Legs long and robust.

Male.—Unknown.

Habitat.—Western Australia: Jigalong (type locality) (J. Hickmer).

Redescribed from a co-type and a large number of specimens from the type nest.

Rhytidoponera convexa Mayr subsp. *violacea* Forel. (Pl. VI, fig. 65-66.)

Ectatomma (Rhytidoponera) convexum Mayr subsp. *violaceum* Forel, Fauna Sudwest Austrl., i, p. 269, 1907, ☿ ♂.

Rhytidoponera (Rhytidoponera) convexa Mayr subsp. *violacea* Emery, Gen. Ins., fasc. 118, p. 38, 1911, ☿ ♂.

Ectatomma (Rhytidoponera) convexum Mayr var. *gemma* Forel, Fauna Sudwest Austrl., i, p. 269, 1907, ☿ ♂.

Worker.—Length, 6·5-8 mm.

Head and gaster brownish-black, thorax almost black. Mandibles, funiculi and legs chocolate-brown. Head, thorax and gaster with a metallic violet-green sheen.

Mandibles, scapes and tibiae very finely and densely striate longitudinally. Clypeus and space between frontal carinae coarsely punctate-rugose, the rugae longitudinal. Head coarsely and irregularly punctate-rugose, punctures shining at bottom. Anterior third of pronotum transversely striate-rugose, with large, shallow, scattered punctures; posterior two-thirds coarsely and irregularly punctate-rugose, the punctures shallow and shining, less numerous than on head. Mesonotum punctate-rugose with a few transverse striae behind. Epinotum transversely striate, coarser behind than in front, with large, shallow, scattered punctures. Node circularly striate on top, transversely striate in front. Postpetiole and gaster transversely arched striate, slightly coarser on postpetiole than on following segment, with very small, scattered, piligerous punctures. Femora finely and densely reticulate. Coxae finely rugose.

Hair yellow, erect, long and abundant on head, thorax, node and gaster, shorter and suberect on antennae and legs.

Head one-fifth longer than broad, sides almost parallel, strongly convex behind the eyes, occipital border feebly convex, angles broadly rounded, a sharp transverse crest, not very prominent, extends round occipital angles. Mandibles rather strongly denticulate. Clypeus convex above, rather sharply convex in front. Frontal area large and shallow. Frontal carinae as long as broad in front. Scapes extend beyond occipital border by one-third their length. First and third segments of funiculus equal in length, slightly shorter than second, apical as long as the two preceding together. Eyes placed at posterior third of sides. Thorax twice as long as broad, pro-mesonotal suture sharply impressed, meso-epinotal suture indicated. Pronotum one-fourth broader than long, sides and dorsum feebly convex. Mesonotum one-third broader than long, strongly convex in all directions, bluntly pointed in front. Epinotum strongly convex transversely. In profile evenly convex longitudinally with a distinct impression at the sutures. Node rather thin, fully twice as broad as long, convex in all directions. In profile high and slender, anterior and posterior faces straight and parallel, dorsum short, feebly convex, the ventral spine short and slender, sharp-pointed. Postpetiole one-third broader than long, strongly convex in front. First segment of gaster barely one-third broader than long, strongly convex behind. The constriction between the segments rather wide but not deep. Legs long and robust.

Male.—Length, 7·5-8 mm.

Head, thorax and node dark chocolate-brown, with a metallic violet sheen, mandibles, clypeus, antennae and legs brown. Gaster bright metallic green, or blue-green.

Mandibles finely striate longitudinally. Clypeus very coarsely punctate-rugose, punctures large, shining at bottom. Head more finely punctate-rugose, the punctures large and shallow. Whole of thorax coarsely punctate-rugose, the punctures large and shining at bottom, interstices finely reticulate. Node and gaster transversely striate, the striae more or less obsolete, particularly on first segment of gaster.

Hair yellow, long, erect and abundant throughout, shorter and suberect on antennae and legs.

Head one-eighth broader than long, strongly convex behind eyes. Mandibles with numerous strong sharp teeth. Clypeus strongly convex in front and above. Frontal area large, triangular and shallow. Frontal carinae as long as broad in front, broadest behind. Second segment of funiculus slightly longer than scape and four times longer than first. Eyes occupy barely half the sides. Ocelli large and convex. Thorax barely twice as long as broad. Pronotum projecting very slightly in front of mesonotum, strongly convex. Mesonotum barely as long as broad, cone-shaped in front, feebly convex behind, central groove in front strongly impressed, parapsidal furrows weakly impressed, mayrian furrows not indicated. Scutellum slightly broader than long, broadest in front, convex in all directions. Metanotum triangular, much broader than long. Epinotum convex transversely. In profile promesonotal suture feebly impressed. Pronotum erect, feebly convex. Mesonotum strongly convex from apex to base. Scutellum dome-shaped, fully twice as long as high. Metanotum longer than high, convex above. Epinotum convex, rounded into declivity, the latter straight, longer than dorsum. Node much broader behind than in front, sides convex. In profile highest and convex behind, sloping gradually downward in front. The ventral spine slender and sharp, one-third longer than broad at base. Postpetiole one-fifth broader than long, sides strongly convex. First segment of gaster one-third broader than long, sides strongly convex. Constriction between the two segments deep and wide. Genitalia retracted. Legs long and slender.

Habitat.—Western Australia: Widely distributed from Geraldton to Bunbury and eastward to Northam.

Explanation of Plates.

Plate III.

Frontal view of head; lateral view of body.

Fig.

1. *Rhytidoponera cerastes* Crawley. Worker.
2. *R. taurus* Forel. Worker. 3. Male.
4. *R. cornuta* Emery. Worker.
5. *R. aurata* Roger. Worker. 6. Male.
7. *R. mirabilis* sp. nov. Worker.
8. *R. quadriceps* sp. nov. Worker.
9. *R. scabra* Mayr. Worker. 10. Male.
11. *R. laticeps* Forel. Worker. 12. Male.
13. *R. glabrior* Forel. Worker. 14. Male.
15. *R. mayri* Emery. Worker. 16. Male.

Plate IV.

Fig.
17. *Rhytidoponera nudata* Mayr. Worker.
18. *R. petiolata* sp. nov. Worker.
19. *R. spoliata* Emery. Worker.
20. *R. socrus* Forel. Worker.
21. *R. nitida* sp. nov. Worker.
22. *R. dixoni* sp. nov. Worker. 23. Male.
24. *R. gregoryi* sp. nov. Worker.
25. *R. ferruginea* sp. nov. Worker.
26. *R. cristata* Mayr. Worker. 27. Male.
28. *R. punctiventris* Forel. Worker. 29. Male.
30. *R. yorkensis* Forel. Worker.
31. *R. barnardi* sp. nov. Worker.
32. *R. carinata* sp. nov. Worker.

Plate V.

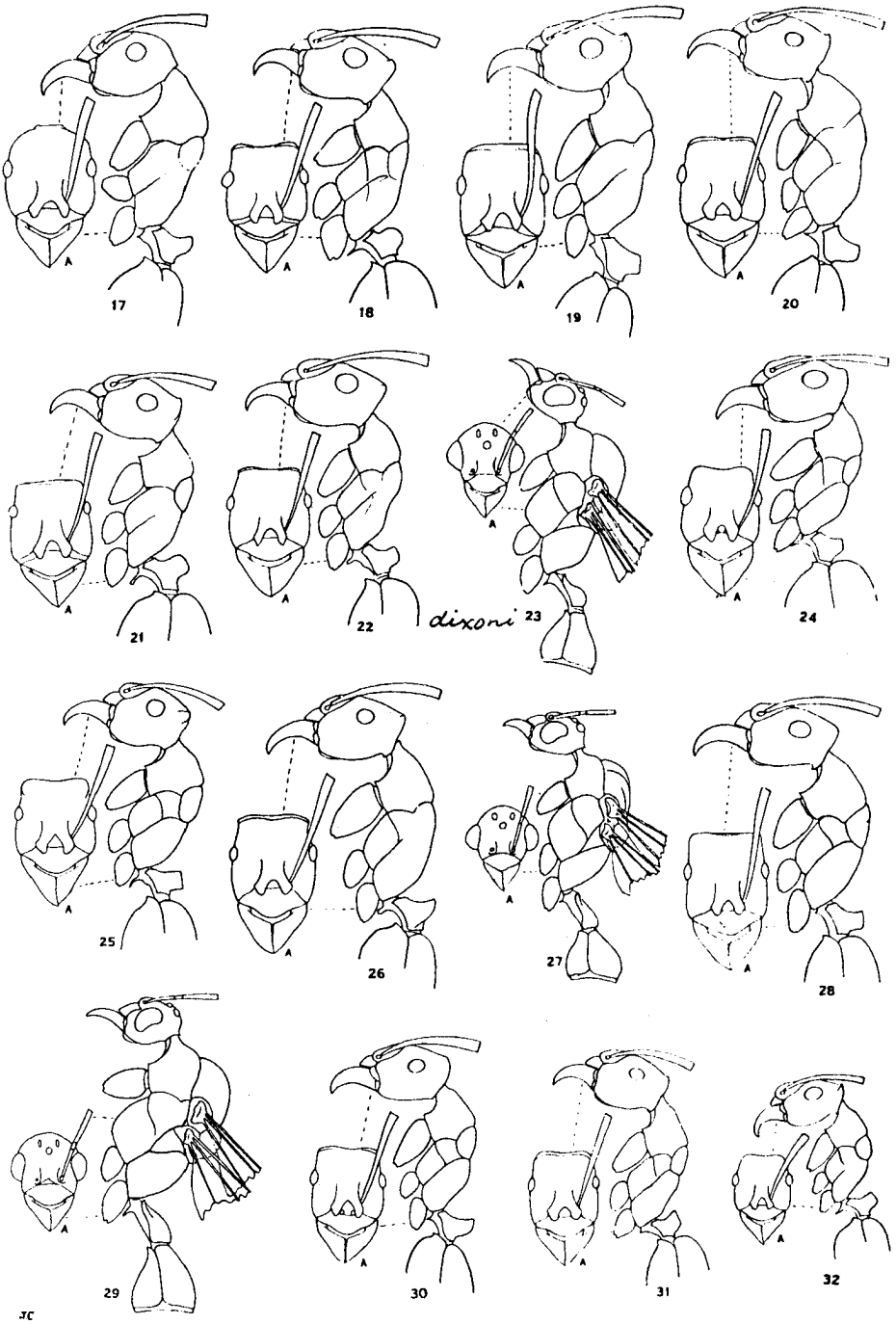
Fig.
33. *Rhytidoponera aciculata* Smith. Worker.
34. *R. punctata* Smith. Worker.
35. *R. rufonigra* sp. nov. Worker. 36. Male.
37. *R. flindersi* sp. nov. Worker.
38. *R. levior* Crawley. Worker. 39. Male.
40. *R. micans* sp. nov. Worker. 41. Male.
42. *R. maniae* Forel. Worker.
43. *R. spatiata* Forel. Worker. 44. Male.
45. *R. nodifera* Emery. Worker. 46. Male.
47. *R. foveolata* sp. nov. Worker. 48. Male.

Plate VI.

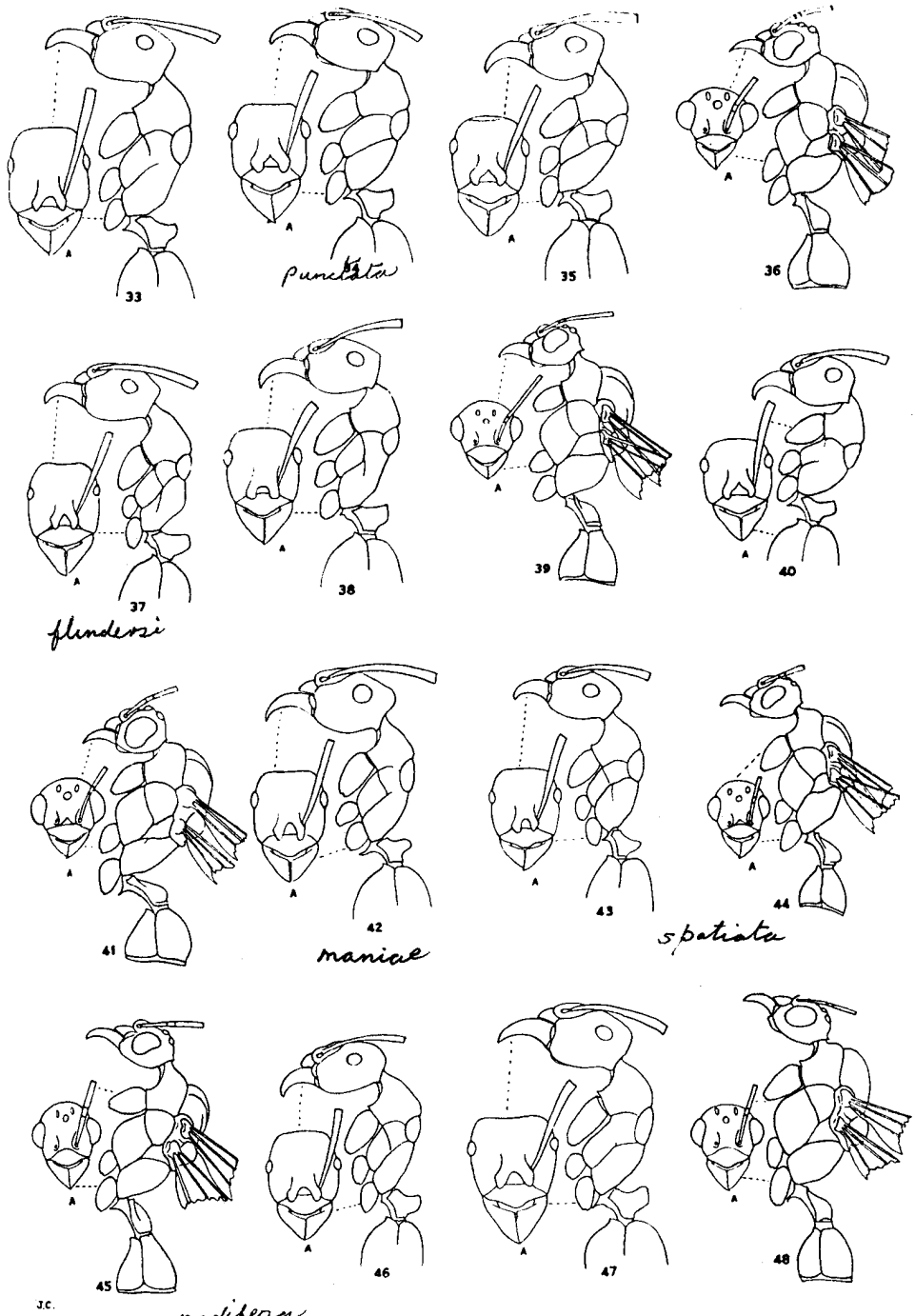
Fig.
49. *Rhytidoponera punctigera* Crawley. Worker.
50. *R. incisa* Crawley. Worker.
51. *R. malandensis* Forel. Worker.
52. *R. reticulata* Forel. Worker.
53. *R. crassinodis* Forel. Worker.
54. *R. reflexa* sp. nov. Worker.
55. *R. foreli* Crawley. Worker.
56. *R. eremita* sp. nov. Worker.
57. *R. fuliginosa* sp. nov. Worker.
58. *R. pilosula* sp. nov. Worker.
59. *R. nigra* sp. nov. Worker.
60. *R. hilli* Crawley. Worker.
61. *R. rufiventris* Forel. Worker.
62. *R. convexa* Mayr. Worker.
63. *R. rufescens* Forel. Worker.
64. *R. opacior* Crawley. Worker.
65. *R. violacea* Forel. Worker. 66. Male.

Rhytidoponera spp.

Southern Aust *



Rhytidoponera spp.



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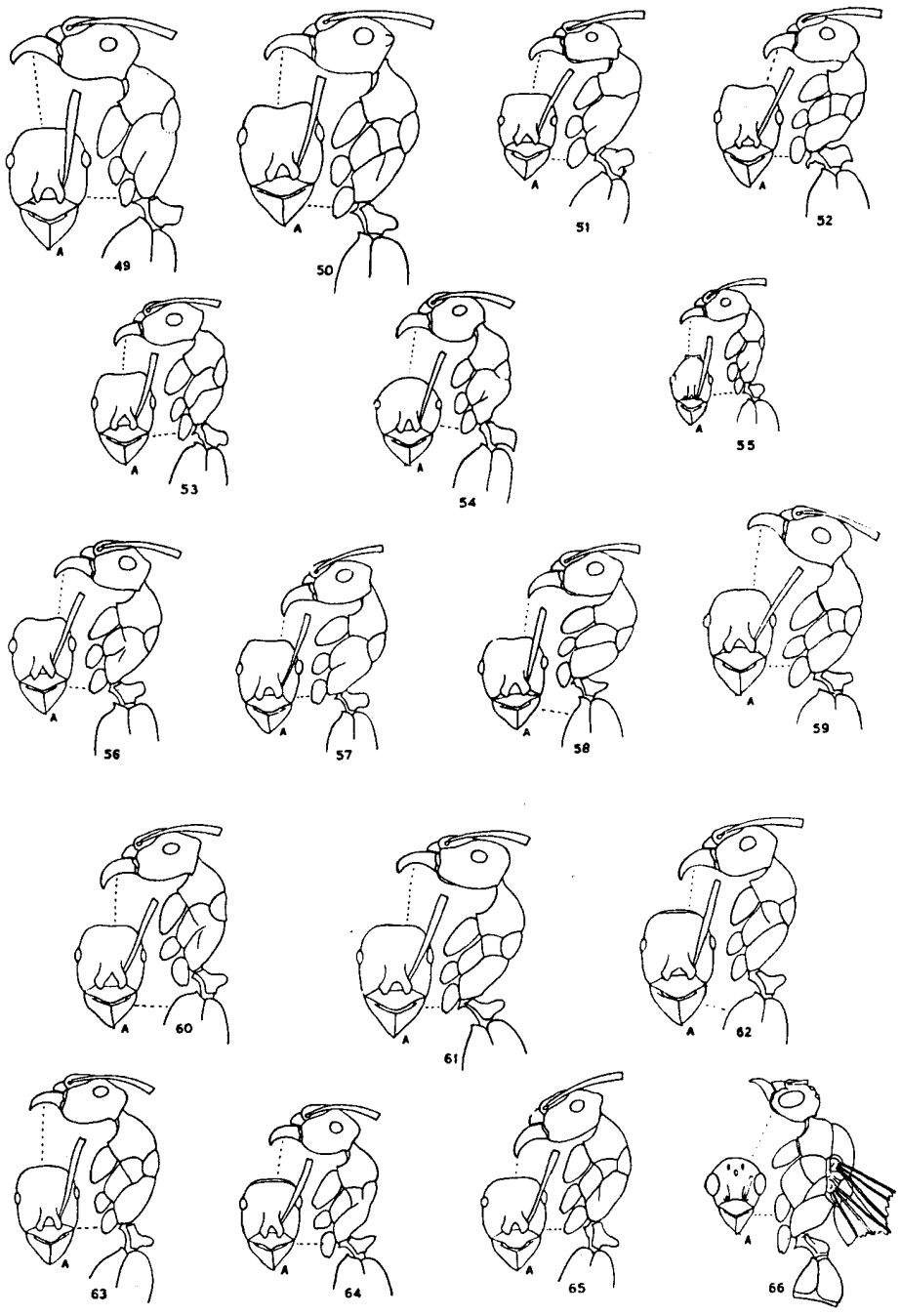

JC.

Rhytidoponcra spp.